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ABSTRACT

This study examined differences in oral reading strategies of 60 first-grade students attending school in two comparable Texas districts. One district provided beginning reading instruction through an eclectic basal approach; the second taught reading using a phonic emphasis approach. The Reading Miscue Inventory was used to analyze oral reading performance. Among the findings were that instructional programs emphasizing eclectic reading resulted in more miscues that were syntactically acceptable, that were semantically acceptable, that caused no change of meaning, and that were self-corrected, while programs emphasizing phonics produced more miscues that had high graphic or phonic proximity and that were nonwords. Phonics programs also produced students with higher word-recognition grade scores than comprehension grade scores and with higher instructional word-recognition levels; programs emphasizing an eclectic approach produced significantly higher instructional comprehension grade levels and students with higher comprehension grade scores than word-recognition grade scores. Teacher applications of miscue profiles are also discussed. (AA)

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A Comparison of the Oral Reading Strategies and Comprehension Patterns Developed by High, Average, and Low Ability First Grade Students Taught by Two Approaches -- Phonic Emphasis and Eclectic Basal

by

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CHAPTER 1

STATEMENT OF THE PROBLEM

Developing students' ability to read is listed as one of the primary goals of the state board of education in Texas. The state board clearly states that public schools should help each student maximize personal knowledge, skills, and competence.

Schools in Texas are using instructional materials that utilize two basic types of approaches to learning to read. The phonic programs stress code emphasis with intensive attention to teaching the ability to decode. The initial vocabulary in the code emphasis programs is controlled according to the regularity of the spelling patterns. Words are often presented using isolated word lists and placing less stress on meaning than on the ability to "sound out" words. The eclectic programs have a more gradual approach to phonic analysis, stressing reading for meaning from the beginning. The eclectic programs control vocabulary on the frequency of use criteria with an early emphasis on silent reading and use a variety of word recognition clues including context clues, phonics, structural analysis, and picture clues.

Students may be developing totally different reading strategies and comprehension skills due to these different instructional programs. The identification of oral reading strategies that may occur due to a specific instructional program would be beneficial for the development of both classroom reading programs and remedial reading programs. If comprehension is shown to be related to these patterns, teachers will be able to use this knowledge to choose the instructional materials that will develop specific comprehension skills that will strengthen weaknesses in their own programs.

The purpose of this study was to compare the oral reading strategies used by high, average, and low ability first grade students who receive initial reading instruction using a phonic emphasis approach with the strategies of students who receive instruction using an eclectic basal reading approach. The study asked whether first grade students learning to read from a phonic approach or from an eclectic approach, do or do not use different strategies during oral reading in sentence contexts. The study also asked whether first grade students learning to read from a phonic approach or from an eclectic approach, do or do not develop different comprehension skills.

Objectives

The research pertaining to reading strategies had the following objectives:

A. The identification of oral reading strategies that are developed by high, average, and low ability readers who receive first grade instruction using a phonic emphasis reading approach. The specific oral reading strategies to be measured include: (1) graphic proximity, (2) phonic proximity, (3) grammatical function, (4) syntactic acceptability in the total sentence, (5) semantic acceptability in the total sentence, (6) meaning change, (7) nonword miscues, and (8) corrected miscues.

B. The identification of oral reading strategies that are developed by high, average, and low ability readers who receive first grade instruction using an analytic-eclectic reading approach. The specific oral reading strategies to be measured include: (1) graphic proximity, (2) phonic proximity, (3) grammatical function, (4) syntactic acceptability in the total sentence, (5) semantic acceptability in the total

sentence, (6) meaning change, (7) nonword miscues, and (8) corrected miscues.

C. The identification of correction strategies that are developed due to the influence of the specific instructional program. The correction strategies to be measured include: (1) semantic acceptability of the passage, (2) syntactic acceptability of the passage, (3) grammatical function of corrections, (4) influence of total meaning of the passage, (5) grapho-phonemic relationship of the corrected error and the text word.

D. The identification of comprehension skills development related to specific patterns of oral reading strategies and instructional approaches. The comprehension skills to be measured include: (1) independent comprehension level, and (2) instructional comprehension level.

Background and Significance of the Problem

The identification of oral reading strategies that may occur due to a specific instructional program would be beneficial for both the developmental reading program and the remedial reading program. If oral reading strategies are related to the instructional program rather than chronological stages in every child's development regardless of instructional method, the oral reading patterns could be used diagnostically to prescribe materials that will improve the skills needed by the disabled reader. There may be aspects of the reading curriculum or properties of materials that lead a child into making errors, correcting errors, or developing specific comprehension skills. The identification of specific oral reading strategies related to reading instruction could assist reading instructors in identifying the combination

of instructional strategies that develop in the reader the ability to self-correct errors and read with a high degree of comprehension.

The need for research in the area of reading strategy development as it relates to reading instruction has been noted by a number of reading authorities. Chall (1973) proposed an analysis of oral reading errors of children taught by different methods and materials in order to provide a picture of the developmental process of learning to read as it relates to the way pupils are taught to read and the materials on which they practice. Chall states, "The implications of these kinds of error data for understanding the beginning reading process and for the diagnosis and teaching based on individuals' needs are enormous." Weber's (1968) comprehensive review of the literature pertaining to oral miscues concluded that the possibility exists that children of the same age and grade level may have distinct patterns in the distribution of error types due to differential training. Few studies have compared the oral reading profiles of early readers who have been taught using two different instructional methods.

Theoretical Framework for Oral Analysis Research

The study of oral reading errors is based on the premise that all responses to printed words are caused and are not accidental. Goodman (1969, p. 12) wrote:

> "In every act of reading, the reader draws on the sum total of prior experience and learning. Observed responses which do not correspond to expected responses are generated through the same process as expected ones. By comparing the ways these miscues differ from the expected responses, we get direct insights into how the reading process is functioning in a particular reader at a particular point in time. Such insights reveal not only weaknesses, but strengths as well, because the miscues are not simply errors but the results of the reading process having miscarried in some minor or major ways."

This trend toward treating errors, not as symptoms of reading difficulty,

but as information about the reading process, is visible in the investigations of Clay (1969), Burke (1972), Weber (1970), and Page (1974). Clay stresses that an error subsequently corrected can be recorded objectively. The self-correction behavior may be diagnostic of unobservable student processing. Page emphasized the use of oral errors to study the correct features of erroneous responses.

This study viewed the analysis of oral reading errors as a means of providing insights into the student's reading behavior. Likewise, the study stressed the linguistic structures involved in reading. Smith (1971) contends that word and meaning identification are not possible unless the reader is able to use orthographic, syntactic, and semantic redundancy. Ruddell's model of reading (1970) specifies three levels of linguistic structure: (1) the surface level, which includes morphemic and syntactic elements; (2) the interpretation level, which includes structural and semantic elements; and, (3) the deep structure level, which includes integration and storage. Wardhaugh (1969) suggests that comprehension is related to the deep and surface structure of the sentence. Therefore a syntactic as well as semantic interpretation must be made by the reader. To this extent, errors illuminate cognitive processes as well as or better than correct responses.

Weber (1969) criticized much oral reading research due to the failure of the investigators to take into account the various levels of linguistic structure or to indicate how closely an erroneous response approximates an expected response on any of the linguistic levels. A phonic approach which emphasizes grapho-phonemic correspondences may cause a child to ignore the semantic cue systems. Research which analyzed oral reading errors in a contextual setting would be able to specify the cue systems that are being

used by the individual students.

This research investigated oral reading errors occuring from a total contextual reading situation in order to analyze a student's use of phonic cues, semantic cues, and syntactic cues as the use of cues relates to the specific instructional program and comprehension patterns that may develop. Eisenhardt (1974) declares that words alone do not carry precise meaning until they are placed in the structural and intonational system of the English language. He believes the written word does not provide meaning until the individual's sense of structure gives the written word meaning. Instructional approaches vary greatly in emphasis on phonics and meaning. Will students taught to read using the two different approaches due to different aspects of the written word and consequently respond to a different manner to various levels of comprehension and correction strategies?

Allen (1972), Page (1974), and Clay (1969) view the analysis of correction strategies as one of the most crucial categories investigated by oral reading researchers. Goodman (1969, p. 19) wrote, "Perhaps the most significant factor in analyzing any miscue is whether or not it is corrected. The analysis of which miscues are corrected and under what circumstances has been most revealing." Festinger (1958) hypothesized that the presence of self-correction behavior may be diagnostic of the reading process. He stated that the reader may experience feelings of dissonance when he becomes concious of a difference between what he has said and the message in the text. If the response does not make sense in the sentence, story, or with the pictures, Festinger believes that cognitive dissonance may be created within the reader. He hypothesized that perceptual dissonance may be created in the reader due to an incongruity between the print and the response. Self-correction strategies are believed to be a method readers use

to overcome this cognitive or perceptual dissonance.

This research was designed to investigate the correction strategies that may result due to different instructional approaches. It will clarify the problem and hopefully answer the following questions: (1) Do different instructional approaches cause students to focus more on cognitive or more on perceptual aspects of reading? (2) If a student focuses more on cognitive aspects of reading how will his comprehension be affected? (3) If a student focuses more on perceptual aspects of reading how will his comprehension be affected?

Related Research

The literature review revealed only a few studies that have investigated the oral reading strategies both of students learning to read using a phonic emphasis program and of students learning to read using an eclectic reading program. Barr (1975) looked at the oral reading strategies used by first graders after they received instruction in a phonic method and compared the strategies with the strategies used by first graders following instruction in an eclectic basal program. She concluded that it appears to be possible to determine strategies that beginning readers use for translating print into speech. Barr stated, "These findings suggest that the response patterns for groups of pupils instructed by particular methods are representative of most members within the group rather than a function of the distinctive pattern of a few" (p. 578). No conclusions could be drawn pertaining to semantics, syntax, or correction strategies since lists of words were used for the oral reading analysis. In contrast, this researcher used a total story for each sample in order to observe semantic, syntactic, and correction strategies.

DeLawter (1970) studied the relationship of beginning reading instruction and miscue patterns of second graders in New York City schools. The subjects had participated in the Beginning Reading Project of the Center for Urban Education and Columbia University. One group received instruction in a phonic emphasis program (Miami Linguistic Readers). The other group received instruction in the Chandler Language Experience Readers, which emphasize content of the stories. DeLawter's study showed the phonic emphasis group produced higher percentages of nonwords that were also judged to be good decoding attempts. Differences were found in the semantic acceptability of the miscues. The actual number of miscues that were semantically acceptable was higher for the meaning emphasis group. DeLawter concluded that miscue patterns appear to be directly related to beginning reading approaches and that the strategies are predictable based on the emphasis of the instructional program. DeLawter did not analyze comprehension patterns in relation to oral miscue patterns.

One study (Burke, 1973) analyzed comprehension ratings and self-correction behavior as the comprehension ratings and oral reading strategies relate to instructional programs. Burke's sample of first graders, however, was small (six) and was not differentiated according to ability groupings. Three of Burke's subjects were taught by a basal approach and three by an approach that stressed phoneme-grapheme correspondences. Burke concluded that the group taught by phoneme-grapheme correspondence made more miscues, had lower comprehension ratings, and showed an inverse relationship between phoneme-grapheme correspondence and grammatical and semantic acceptability. The basal group produced more varied profiles, showing they were using all the cueing systems including phoneme-grapheme, syntactic, and semantic. Burke concluded that reading methodology can affect reading behavior. This

present research also investigated comprehension ratings and oral reading strategies as they related to instructional programs. The rather large samples included high ability, average ability, and low ability subjects.

The significance of this area of study was born out by the research work of Norton (1976), completed at the University of Wisconsin, Madison. Norton investigated the oral reading errors of high and low ability first and third graders taught by two approaches - synthetic-phonic and analytic-eclectic. Significant differences were found between the oral reading strategies of first and third grade students who received instruction using a synthetic-phonic approach, and the strategies of first and third grade students who received instruction using an analytic-eclectic approach. Significant differences in mean scores were found at both first and third grade levels for the following categories:

1. Higher graphic proximity mean scores favored the high and low ability synthetic-phonic subjects.
2. Higher phonic proximity mean scores favored the high and low ability synthetic-phonic subjects.
3. Higher semantic acceptability mean scores favored the high and low ability analytic-eclectic readers.
4. Higher nonword mean scores favored the high and low ability synthetic-phonic subjects.
5. Higher no meaning change mean scores favored the high and low ability analytic-eclectic readers.
6. Higher correction mean scores favored the high and low ability analytic-eclectic readers.
7. Higher semantic acceptability of the corrections within the prior portion of the sentence favored the analytic-eclectic readers.

8. Higher mean scores for corrections that had previously changed meaning favored the high and low ability analytic-eclectic readers.
9. Higher mean scores for noncorrections that are semantically acceptable within the total sentence favored the high and low ability analytic-readers.
10. Higher noncorrection mean scores for miscues that resulted in no meaning change favored the high and low ability analytic-eclectic readers.

Significant differences in mean scores were not found at first and third grade levels for the categories of grammatical function and syntactic acceptability.

The results of Norton's investigation seemed to warrant the following conclusions and implications:

1. A synthetic-phonic instructional approach develops graphic and phonic reading strategies in both high and low ability first and third grade students. Students who learn to read using a phonic emphasis approach are extremely proficient in the use of phonic analysis. This proficiency is observable in the students' tendency to produce nonwense words. The nonwords closely resemble the sound-letter relationships of the text word. The synthetic-phonic readers did not self-correct the nonwords that demonstrated a high graphic-phonic relationship.

Several instructional implications may be derived from these conclusions. Producing highly accurate readers is a worthy educational goal. Teachers who use a strong phonic emphasis approach might strengthen the approach by stressing phonic analysis within sentence contexts. Reading lists of isolated words may be causing students to ignore the meaning association of

words.

2. Synthetic-phonic and analytic-eclectic reading approaches both develop syntactic reading strategies in readers. All subjects in Norton's study applied their knowledge of syntactic constraints in order to form sentences that were grammatically acceptable.

The analytic-eclectic readers used a syntactic acceptability strategy to detect errors and develop error correction strategies. If an error produced a syntactically unacceptable sentence, the analytic-eclectic readers tended to correct the error. The synthetic-phonic readers had not developed this correction strategy. Further research would appear to be necessary in order to relate instructional approaches and syntactic correction strategies. This research will hopefully answer this important question.

3. Analytic-eclectic programs produced reading strategies that rely heavily on the semantic acceptability of the passage. Both low ability and high ability students used this strategy. The use of a semantic strategy was discernable when analyzing correction strategies. All of the analytic-eclectic readers tended to correct the error when the error resulted in a sentence that was no longer semantically correct. The search for semantically acceptable sentences sometimes produced errors that distorted the sound-letter relationships of the test words. This tendency to distort sound-letter relationships was most apparent in the errors of the low ability analytic-eclectic readers. The synthetic-phonic readers in Norton's study did not develop observable semantic strategies. The synthetic-phonic emphasis on decoding skills may develop a mind set in the beginning reader. This finding is more significant at

the third grade level than at the first. The instructional approach appears to result in long-range use of oral reading strategies that are developed in first grade.

Several implications for further study were suggested by Norton's study. Research should be carried out through a longitudinal study. Does the synthetic-phonic instructed student eventually develop oral reading strategies that demonstrate a semantic understanding? Research should compare instructional approaches to ascertain if the lack of oral semantic acceptability affects comprehension. The present study investigated these semantic and comprehension concerns.

A number of instructional implications may be derived from these conclusions. Teachers should be aware that instructional approaches may not develop semantic awareness strategies. The student needs to be aware that the purpose of reading is a meaningful exchange with the author. Students must be encouraged to correct errors when the semantic acceptability of the passage is distorted. Correction strategies may not develop without instructional assistance.

4. The analytic-eclectic approach produced readers that relied heavily on the meaning of the passage. Analytic-eclectic readers produced errors that did not show a tendency to distort meaning. When the meaning was drastically altered, the analytic-eclectic readers usually self-corrected the error. The meaning stress of the analytic-eclectic approach apparently produces this reading strategy. The synthetic-phonic reader's reliance on phonics may tend to divert the reader away from the meaning of the passage.

Norton's study showed the need for further research to investigate

if synthetic-phonic readers understand the deep structure of the passage even though nonwords distort passage meaning. Longitudinal studies should ascertain if the production of nonwords affects vocabulary developments. The research which is the main concern of this paper investigated deep structure understanding.

Instructionally, teachers cannot assume that all reading approaches will focus the student's attention on passage meaning. The remedial student, who lacks comprehension skills, may be reading without focusing on meaning.

5. An analytic-eclectic reading approach apparently develops self-correction strategies in readers. In Norton's study, approximately every second error was corrected by the analytic-eclectic readers. This self-correction strategy separated all of the subjects in the study according to instructional approaches. The synthetic-phonic group corrected approximately every sixth error. Three aspects of the linguistic structure seem to influence the correction strategies of the analytic-eclectic reader. If the miscue was semantically unacceptable and/or grammatically unacceptable and/or resulted in a meaning change, the analytic-eclectic reader usually corrected the error. If the error was semantically acceptable, grammatically acceptable, and resulted in no meaning change, the analytic-eclectic reader did not tend to forget.

The need for further research is indicated to ascertain the combination of instructional strategies that will develop in the reader the ability to self-correct errors. The research findings could be used to design a reading program that will develop these necessary skills in readers.

CHAPTER 2

DESIGN OF THE STUDY

Methodology

The primary purpose of this study was to investigate whether first grade students learning to read from a phonic emphasis approach develop different oral reading strategies than first grade students learning to read from a basal approach. Another purpose of the study was to analyze comprehension skills that are developed by students in the two approaches. The Reading Miscue Inventory (Goodman, 1970) was used to analyze the oral reading strategies of high ability, average ability, and low ability students. The Silvaroli Classroom Inventory was administered to each subject in order to analyze comprehension.

Selection of Subjects

The subjects for the study included 60 first grade students attending school in two comparable Texas districts. One district provided beginning reading instruction through an eclectic basal approach (Holt, Rinehart, and Winston). The second district taught reading using a phonic emphasis approach (Economy).

Subjects were assigned to six cells using a stratified, random sampling procedure. The cells included a sample of ten high ability, ten average ability, and ten low ability first grade phonic readers. The cells also included ten high ability, ten average ability, and ten low ability first grade eclectic readers.

The high ability first grade sample was randomly selected from all students who were instructed in the respective approaches during first grade and were also identified as high ability readers by their respective teachers. A similar procedure was used for identifying average and low ability subjects.

Story Selections

In order to provide an indepth analysis of oral reading errors, subjects were required to read a total story. Selections from the Reader's Digest Skill Builders were chosen for the oral reading experience. The following selections were included: Level 1 - Part A; The Zoo; Level 2 - Part B: Bad Dog Makes Good; Level 1 - Part 1: Peggy Gives Four Presents; Level 1 - Part 2: Wonderful White Horses; Level 2 - Part 1: More Than a Horse; Level 2 - Part 2: Dragon in the Box; Level 3 - Part 1: Jump From an Airplane; Level 3 - Part 3: Hooray for Aunt Connie; Level 4 - Part 1: Flood; Level 4 - Part 2: The King's Goldfish.

Instrumentation: Miscue Analysis

The Reading Miscue Inventory (Goodman, 1972) was selected as the instrument to analyze the subjects' oral reading errors. Findings of empirical research at Wayne State University resulted in the development of the Goodman Taxonomy of Oral Reading Miscues (1969) and the Miscue Reading Inventory (1972). The basic premise of this oral reading research maintains that errors are not accidental or haphazard. The error is generated in response to the same cue and utilizes the same process as a correct oral reading experience. Through the process of contrasting the error with the expected text response, the educator gains knowledge about the reader's

use of linguistic cues. Oral reading research refers to this error as a miscue.

Each subject's first 25 oral reading miscues were analyzed according to eight categories in the Miscue Inventory. The eight categories included:

1. Graphic Proximity: The graphic proximity category analyzed the ability of the subject to attack an unknown word through the appearance of the letters. The sequence and shapes of the miscue were examined with no concern for their pronunciation. The reader's error and the correct response were divided into three parts - initial middle, and final -- and compared. If two of the three parts were similar, the error was categorized as having a high graphic proximity. The following is an example of high graphic proximity.

   Miscue C/OO/K
   Text C/OO/L

   If one of three parts was similar, the error was categorized as having a partial proximity.

   Miscue M/E/T
   Text M/A/N

   Errors that were dissimilar to the expected response in all three parts were categorized as having no graphic proximity.

   Miscue A/N/D
   Text W/H/O

2. Phonic Proximity: Phonic proximity analyzed the ability of the subject to attack an unknown word by assigning possible sounds to the various letters and letter combinations. The sounds of the words were analyzed rather than their spellings. The reader's response and expected word were again divided into three parts.

An example of two words that have a high phonic proximity are:

Miscue SH/A/PE
Text SH/A/DE

Two words that result in a partial phonic proximity are:

Miscue SH/I/NE
Text SH/I/P

Errors that are categorized as having no sound similarity include:

Miscue A/N/D
Text W/H/O

3. Grammatical Function: The grammatical function category analyzed the subject's ability to produce errors that were the same part of speech as the text word. The variety of grammatical functions which will fit any one position within a sentence is limited. The reader's intonation and use of inflectional endings usually make it possible to assign a grammatical function even to nonwords. The reader's response and the expected response were compared to determine if the grammatical function of the two were the same or different. In the following example the miscue has the same grammatical function as the text word:

Miscue He had tomato juice, goldfish, and biscuits.
Text He had tomato juice, codfish, and biscuits.

In the above example, goldfish and codfish are both nouns.

An example of a divergent function would include:

Miscue Yours was ready fair.
Text Yours was ready first.

4. Syntactic Acceptability: Syntactic acceptability category analyzed the student's ability to use syntactic constraints. The words in a sentence have a grammatical organization. There can be acceptable grammar without acceptable meaning. Even a nonsense

structure can assume grammatical acceptability. To determine the acceptability, the total sentence was read with all the uncorrected miscues included. Miscues were judged according to three categories. In the first category, a miscue resulted in a totally acceptable sentence. An example of an acceptable miscue included:

Miscue Yes, the ship was heading this way.
Text Yes, the ship was heading his way.

The second category reported miscues that were syntactically acceptable with the beginning portion of the sentence. Some miscues result in sentences that are syntactically acceptable until the reader finishes the total sentence. The final syntactic judgement included miscues that resulted in totally unacceptable sentences.

5. Semantic Acceptability: The semantic acceptability was judged according to the same three categories as syntactic acceptability. An example of a miscue that resulted in a totally understandable sentence was:

Miscue Harley saw a little box floating by.
Text Harley some some little boxes floating by.

Miscues were also judged according to the acceptability in relation to the beginning portion of the sentence. The following is an example of a miscue that is semantically acceptable with the prior portion of the sentence.

Miscue Harley was some little boxes floating by.
Text Harley saw some little boxes floating by.

6. Meaning Change: The meaning change category analyzed how much the message of the text was altered by the reader's miscues. Does the miscue change the meaning of the texts? Some miscues result in minor changes or no change in meaning. An example of a miscue that resulted in very little change:

Miscue	My best friends would not believe it.
Text	My best friends could not believe it.

Miscues were also judged according to a resulting extensive meaning change.

7. Word or Nonword: In this category the miscue was judged according to the production of another word substitute or a nonsense word. Some miscues are known word substitutes. Nonword miscues result when a child produces sounds that form a nonsense word. An example of a nonword would include:

Miscue	plab
Text	plate

8. Correction: The correction category analyzes the reader's ability to self-correct his errors. The child who successfully corrected a word orally stated the text word following a miscue or shortly after the miscue. This miscue was subsequently marked either corrected or not corrected. Three questions were posed concerning corrected miscues. First, was the miscue corrected if the error was syntactically acceptable with the prior portion of the sentence? Second, was the miscue corrected if the error was semantically acceptable with the same prior portion of the sentence? Finally, was the error corrected if the miscue resulted in a sentence in which there was a meaning change? Three questions were also posed

concerning non-corrected miscues. First, did the non-corrected miscue produce a sentence that was totally syntactically acceptable? Second, did the miscue produce a sentence that was totally semantically acceptable? Finally, did the miscue produce a sentence that did not alter the meaning of the passage? Children's correction strategies provide a clear indication of the cueing systems they are utilizing.

Taping Selections

Each subject read an entire story selection. The selections were at the appropriate instructional level for each subject. A researcher noted the reading miscues on a duplicate story manuscript. Following the reading of the selection, the subject retold the selection in his own words. The oral reading and the retelling were both recorded on tape. The recordings were played at a later time in order to verify each miscue.

Coding Miscues

Researchers analyzed each miscue according to the Goodman Miscue Analysis. Inter-judge correlations were completed for this study by randomly selecting 10 percent of the tapes generated by the study. The tapes were analyzed by two reading specialists. This procedure has been successfully used in other miscue research. Weber (1970) found inter-judge agreement by having two scorers double score 10 percent of the errors. Weber reported entry agreement of over 90 percent. Norton (1976) found inter-judge correlations for specification of error were 97.33 percent; graphic proximity was 94.67 percent; phonic proximity was 94.67 percent; grammatical function was 92 percent; corrections were 100 percent; semantic acceptability was 96

percent; and, meaning change was 94.67 percent.

Instrumentation Comprehension

The Classroom Reading Inventory (1973) by Nicholas J. Silvaroli was administered to each subject. The Classroom Reading Inventory provides both word recognition grade equivalency scores and comprehension grade equivalency scores. The range in difficulty is from Pre-Primer through Grade Level 8. The readability of the Classroom Reading Inventory was judged by the Spache, Dale-Chall, and Flesch readability formulas.

Each student read the graded word lists, the oral paragraph selections, and answered the comprehension questions following the selection. Each student began reading at the Pre-Primer level and continued until he/she had reached his/her frustration reading level. Each selection was taped.

Data Collection

The schedule of oral reading was the same for each subject. First the students read the selections from the Silvaroli Classroom Inventory and answered the comprehension questions accompanying each level. Second, the students read a total selection from the Reader's Digest Skill Builders. Third, students retold the Skill Builder story and answered further comprehension questions. The reading selections were all taped for later analysis of errors and comprehension.

Data Treatment

The 60 subject reading profiles were computed according to the previously mentioned categories. Frequencies were converted into descriptive statistics (mean percentages) for comparative viewing on tables.

The mean percentages of the cells were first compared for graphic proximity, phonic proximity, syntactic acceptability, grammatical function, semantic acceptability, corrections, nonwords, and the degree of meaning change. Second, the mean percentage of corrected miscues were compared for syntactic acceptability with the prior portion of the sentence and semantic acceptability with the prior portion of the sentence. Third, the mean percentages of non-corrected miscues were compared for syntactic acceptability in the total sentence, semantic acceptability in the total sentence, and the degree of meaning change in the passage.

In order to analyze if there was any significant difference in mean cell scores between phonic emphasis and eclectic basal subjects, the ANSCHEFF test (Barker) was applied using raw score data.

CHAPTER 3

RESULTS AND DISCUSSION

The hypothesis that the oral reading strategies of students who received instruction using a phonic approach would be different from the oral reading strategies of students who received instruction using an eclectic approach was supported by the study. Furthermore, low, average, and high ability students learning to read using a phonic approach demonstrated very similar oral reading profiles. Low, average, and high ability students learning to read using an eclectic approach also demonstrated similar profiles. Consequently, the oral reading profiles of low, average, and high ability phonic students were different from the profiles of low, average, and high ability eclectic students.

The study also demonstrated the influence of the approach on a student's word recognition level and comprehension level.

Differences in Oral Reading Strategies Between Phonic and Eclectic Readers

Two procedures will be used to present data results in this study. First, the descriptive statistics (mean percentages) will be reported. The descriptive statistics will make subsequent discussion and comparisons with other research more meaningful. Second, the results of the statistical testing will be examined. This section will discuss the findings as well as relate the current findings to earlier empirical studies.

Graphic Proximity

The graphic proximity scores for all phonic subjects were higher than

the graphic proximity scores for the comparable eclectic subjects. The mean percentages for the graphic proximity category are reported in Table 1. The high, average, and low ability phonic students produced higher percentages of words that had a high graphic proximity. The highest graphic proximity scores were found for the high ability phonic subjects, but all phonic students used oral reading strategy that relied on the graphic presentation of the word. This reliance is apparent when viewing the percentage of miscues that have no graphic proximity. Phonic readers produced low percentages of words that had no graphic elements that were alike. All eclectic students produced higher percentages of words that were not graphically similar. Table 2 reports the mean, standard deviation, and F-ratio for graphic proximity. Significant differences favor the phonic cells.

A code emphasis approach did produce children whose miscues are highly related to the graphic appearance of the text word. This finding supports Barr's (1972, 1975) studies of first grade oral reading errors. Barr concluded that a phonic instructed group reflected the graphic content of the word to a greater extent than a more sight word emphasis group. The code emphasis subjects in this current study were very proficient in the use of a graphic strategy for attacking words.

The results of the present study do not totally support Weber's (1970) finding that better readers surpassed weaker readers in the ability to approach more closely the correct graphic response, regardless of instructional approach. Table 1 reports that not only are high ability phonic students more proficient in the use of a graphic strategy but also the low and middle ability phonic students use a graphic strategy to a greater extent than high ability eclectic students. It may be inferred that the

TABLE 1

Mean Percentages of High, Partial, and No Graphic Proximity for High Ability, Average Ability, and Low Ability Phonic and Eclectic First Graders

Group	High Graphic Proximity	Partial Graphic Proximity	No Graphic Proximity
High Ability Phonic	75.6	22.16	4.8
High Ability Eclectic	45.6	30.0	24.4
Average Ability Phonic	67.2	22.4	10.4
Average Ability Eclectic	34.0	35.0	31.0
Low Ability Phonic	63.2	21.6	13.2
Low Ability Eclectic	42.0	29.6	28.4

TABLE 2

Comparison of Phonic and Eclectic Means, Standard Deviation, and F-Ratios for Total Miscues

	PHONIC		ECLECTIC			
	$\bar{X}$	SD	$\bar{X}$	SD	F*	P
High Graphic Proximity	17.16	2.19	10.13	1.61	137.67	.0000
No Graphic Proximity	2.36	1.61	7.03	2.44	64.49	.0000
High Phonic Proximity	15.36	2.20	8.75	1.62	131.88	.0000
No Phonic Proximity	2.63	1.69	6.48	2.27	48.23	.0000
Same Grammatical Function	17.66	2.49	18.31	2.42	.910	.3463
Syntactic Acceptability	14.80	2.52	16.55	3.35	5.09	.0262
Semantic Acceptability	8.23	2.13	15.72	3.14	105.94	.0000
No Meaning Change	5.86	2.00	13.24	2.48	115.79	.0000
Nonword Miscues	8.40	2.37	.89	1.20	205.84	.0000

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instructional approach does influence the student's reliance on a graphic word attack strategy.

Phonic Proximity

The phonic instructional approach appears to develop readers who are efficient in the use of phonic analysis. Table 3 reports the mean percentages for phonic proximity. It is apparent that all the phonic ability groups produced higher percentages of miscues that are classified as having a high phonic proximity. The mean raw scores and standard deviations are presented in Table 2. Table 2 shows that significant F-ratios favor the phonic subjects. A comparison of Table 1 and Table 3 shows that all types of readers rely more heavily upon the graphic system than the phonemic system. All the graphic means were slightly higher than the phonic means.

The decoding emphasis of the phonic program was apparent in the oral reading profiles of all the phonic subjects. This finding concurs with phonic advocate Walcutt's (1969) view that a student must learn to decode the sound that the printed word represents. This research also supported DeLawter's (1970) findings that second grade code emphasis students produced a higher percentage of "good decoding attempts" than did a meaning emphasis group. Phonic and graphic cues appear to be the most useful cueing systems for all phonic emphasis students. The superior performance of the high, average, and low ability phonic readers in their use of graphic and phonic strategies supports the hypothesis that the instructional approach influences the development of these strategies.

Grammatical Function

The results of this study support the hypothesis that instructional

TABLE 3

Mean Percentages of High, Partial, and No Graphic Proximity for High Ability, Average Ability, and Low Ability Phonic and Eclectic First Graders

Group	High Phonic Proximity	Partial Phonic Proximity	No Phonic Proximity
High Ability Phonic	66.0	27.6	6.4
High Ability Eclectic	40.4	36.0	23.6
Average Ability Phonic	63.2	25.2	11.6
Average Ability Eclectic	31.2	43.2	25.6
Low Ability Phonic	55.2	29.2	13.6
Low Ability Eclectic	32.8	38.0	29.2

programs emphasizing phonic and eclectic approaches both result in approximate equal numbers of miscues that have the same grammatical function as the text word. Table 4 shows that the mean percentages are very similar for all ability groups. The F-ratio reported in Table 2 shows no statistical difference between groups.

The DeLawter (1970) study concluded that both a decoding emphasis group and a meaning emphasis group used a strategy that produced words with similar grammatical function as the test words. The results of Burke's (1973) study of strategy comparisons between a phonic emphasis group and a meaning emphasis group did not support the tenet that all readers bring their knowledge of grammar to bear on the reading process. Burke concluded that a first grade basal group produced miscues that had a higher grammatical acceptability than the miscues produced by a first grade decoding emphasis group.

Syntactic Acceptability

Instructional programs emphasizing a phonic approach and instructional programs emphasizing an eclectic approach both produced readers whose oral miscues were usually classified as syntactically acceptable within the total sentence. Table 5 shows that the eclectic percentages were slightly higher than the phonic means. These differences, as compiled in Table 2, are significant at the .026 level in favor of the eclectic readers.

Weber (1970) reported first grade oral reading responses that conformed to the constraints of the preceding grammatical context. Weber's findings and the present research findings suggest that knowledge of the grammatical structure of sentences is apparent in the oral reading strategies of high, average, and low ability readers. Differences in a student's reliance on

TABLE 4

Mean Percentages of Same, Undecided, and Different Grammatical Function for High Ability, Average Ability, and Low Ability Phonic and Eclectic First Graders

Group	Same Grammatical Function	Undecided Grammatical Function	Different Grammatical Function
High Ability Phonic	75.6	2.0	22.4
High Ability Eclectic	72.8	1.6	25.6
Average Ability Phonic	70.8		26.0
Average Ability Eclectic	72.0		26.4
Low Ability Phonic	65.6	2.8	31.6
Low Ability Eclectic	74.8	2.0	24.0

TABLE 5

Mean Percentages of Syntactic Acceptable, Semantically Acceptable, and No Meaning Change for High Ability, Average Ability, and Low Ability Phonic and Eclectic First Graders

Group	Syntactic Acceptable	Semantically Acceptable	No Meaning Change
High Ability Phonic	62.4	29.6	25.2
High Ability Eclectic	67.2	63.2	62.4
Average Ability Phonic	56.8	33.6	26.0
Average Ability Eclectic	64.8	61.2	52.0
Low Ability Phonic	58.4	35.6	19.2
Low Ability Eclectic	66.4	64.8	45.6

syntactic cues were not discernable between phonic or eclectic samples in the present research.

Semantic Acceptability

Instructional programs emphasizing an eclectic approach produced students whose miscues were classified as semantically acceptable in the total sentence. The mean percentages compiled in Table 5 show that all of the eclectic groups produced semantically acceptable miscues above 60%. In contrast, the phonic groups' percentages of semantically acceptable miscues ranged from 29.6% to 35.6%. The reliance on the semantic acceptability of the miscue within the sentence appears to be a powerful reading strategy for all eclectic ability groupings. Table 2 shows significant differences in favor of the eclectic subjects.

The present findings agree with first grade research reported by Burke (1973) and second grade research reported by DeLawter (1970). The findings do not totally support Weber's (1970) research results. Weber declared that the appropriateness of the errors to the semantic context suggested that students' transfer of their capacity for handling spoken language to the reading task was not related to the type of reading instruction they were given. The present study would indicate that this conclusion would be appropriate for students who received instruction using an eclectic approach but not for students who received instruction using a phonic approach. The eclectic program stressed meaning from the beginning of first grade, while the phonic emphasis program put more emphasis on decoding. The eclectic students frequently commented that an error resulted in a sentence that "did not make sense." The phonic students did not demonstrate this concern.

Meaning Change

All of the eclectic readers produced a higher portion of miscues that did not change the meaning of the sentence. Table 5 shows the differences in mean percentages. The high ability eclectic group produced the highest percentage of miscues that resulted in no change of meaning within the total passage. The percentages in the eclectic groups decreased with the ability level of the group. Table 2 shows that the differences are significant in favor of the eclectic group.

This finding agrees with Elder's (1971) investigation. He found that miscues of a Scottish group of children, taught with a phonic emphasis, distorted the meanings of the sentences to a greater extent than the miscues of an American group of children taught with a meaning emphasis.

The eclectic instructional program stressed meaning, producing readers who read for meaning cues. The high percentages of nonsense words generated by the phonic groups influenced the meanings of the passages they read. Meaning change always resulted when nonsense words were produced and not corrected.

Nonword Miscues

Students learning to read using a phonic approach produced higher numbers of miscues that were in the nonword category. Table 6 shows that approximately 30% of all phonic group miscues resulted in nonwords. In contrast the eclectic students produced very few nonwords (2.8% - 4.4%). The standard deviations shown in Table 2 are extremely low for this nonword category. The nonwords produced by the phonic subjects were closely related to the phonic proximity of the text word.

TABLE 6

Mean Percentages of Non-Word Miscues and Whole-Word Miscues for High Ability, Average Ability, and Low Ability Phonic and Eclectic First Graders

Group	Non-Word Miscues	Whole-Word Miscues
High Ability Phonic	36.8	63.2
High Ability Eclectic	3.6	96.0
Average Ability Phonic	34.4	65.6
Average Ability Eclectic	4.4	95.6
Low Ability Phonic	30.0	70.0
Low Ability Eclectic	2.8	97.2

The use of nonwords may imply a greater accuracy of the phonic readers in their ability to recall individual letter sounds. The heavy reliance on phonic analysis seems to result in a large portion of nonwords.

The research findings of this study concur with Cohen's (1975) first grade research. Cohen reported that nonsense words were a high frequency error when instruction stresses intensive letter-sound relationships. Elder (1971) concluded that Scottish children who received phonic emphasis produced a higher portion of nonwords than did American children who received instruction using a sight word approach.

The meaning emphasis influence of the eclectic instruction approach was evident in the production of miscues that were whole word replacements for the textword by children who had been taught by that method.

Miscues That are Self-Corrected by the Students

In the present study the high and average ability eclectic readers corrected approximately one-half of their errors. The impact of this correction strategy becomes more discernable when the eclectic-corrected miscue percentages are compared with the phonic-corrected miscue percentages. Table 7 shows that high ability eclectic students corrected a mean percentage of 46% errors compared to a mean percentage of 15.6% corrected for high ability phonic students. The only eclectic group that did not have these correction strategies was the low ability group. Table 8 shows that correction differences are significant in favor of the eclectic group.

Valuable information pertaining to correction strategies was derived from the present study. The significance of a student's correction strategies is discernable when the corrections are analyzed according to properties of the corrected miscues.

TABLE 7

Mean Percentages of Corrections, Prior Portion of Sentence Syntactically Acceptable, Prior Portion of Sentence Semantically Acceptable, and Meaning Change in Passage for High Ability, Average Ability, and Low Ability Phonic and Eclectic First Graders

Group	Corrections	Prior Portion Syntactically Acceptable	Prior Portion Semantically Acceptable	Meaning Change
High Ability Phonic	15.6	35.0 (of 3.9)	30.7 (of 3.9)	71.0 (of 3.9)
High Ability Eclectic	46.0	51.64	54.51	58.3
Average Ability Phonic	12.8	6.0	5.6	8.4
Average Ability Eclectic	46.8	54.7	54.7	64.96
Low Ability Phonic	11.2	3.2	3.2	8.4
Low Ability Eclectic	26.8	53.14	53.14	70.44

TABLE 8

Self-Corrected Miscues

	PHONIC		ECLECTIC			
	$\bar{X}$	SD	$\bar{X}$	SD	F*	P
Total Corrections with Prior Portion Acceptable	3.30	1.52	10.10	3.69	64.09	.0000
Prior Portion Syntactically Acceptable	1.23	1.09	5.44	2.31	63.66	.0000
Prior Portion Semantically Acceptable	1.16	1.10	5.58	2.42	63.33	.0000
Prior Portion Acceptable with Meaning Change	5.86	2.00	13.24	2.48	115.79	.0000

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Corrected Miscues That are Syntactically Acceptable with the Prior Portion of the Sentence

Approximately one-half of the corrections made by the high, average, and low ability eclectic students were syntactically acceptable with the beginning portion of the sentence but were not syntactically acceptable within the total sentence. As soon as the error caused the sentence to become syntactically unacceptable, the eclectic students showed a tendency to correct the error. This tendency is shown in Table 7. Table 8 shows that eclectic students make a significantly greater use of this strategy.

Corrected Miscues That are Semantically Acceptable with the Prior Portion of the Sentence

The eclectic students also corrected errors that were semantically acceptable with the beginning portion of the sentence but were not semantically acceptable within the total sentence. When the error resulted in a sentence that was not semantically acceptable, this eclectic group tended to self-correct. Pauses were discernable in the taped responses of the eclectic readers. These students usually stopped reading and corrected their errors when the sentence was no longer semantically acceptable. All eclectic readers demonstrated the use of these correction strategies. Tables 7 and 8 show that phonic emphasis students did not demonstrate these correction strategies.

The correction strategies of the eclectic students may demonstrate Festinger's (1958) concept of cognitive dissonance. Festinger believes the reader may experience feelings of dissonance when he becomes conscious of differences between what he has said and the message in the text. When the response no longer made sense within the sentence, the eclectic

readers in this study tended to correct their oral reading errors.

The phonic readers in this study did not show a tendency to correct their errors even though the resulting sentence was no longer semantically acceptable. This tendency is consistent with Festinger's concept of perceptual dissonance. Festinger hypothesized that perceptual dissonance is created when there is an incongruity between the print and the response. The phonic responses were closely related to both the graphic and phonic proximity of the text word. This may have caused the phonic readers to feel satisfied with their miscues.

The correction strategies displayed by the subjects in the present study demonstrated that oral reading strategies were influenced by the instructional approach.

Corrected Miscues That had Changed the Meaning of the Sentence

The eclectic readers produced higher percentages of miscues that previously changed the meaning of the passage. The greater reliance of the eclectic readers on the meaning of the passage was apparent in their tendency to correct an error that had caused a change in meaning (Tables 7 and 8).

The eclectic approach stressed word attack in sentence contexts. The meaning aspects of reading identified by Clymer were apparently developed by the eclectic approach. Clymer (1969) maintains that understanding the author's message, critical evaluation of that message, and incorporating the author's ideas into one's thinking and action are all essential skills to be developed in a broad based eclectic reading program.

The phonic readers did not use these meaning cues to correct errors. Elder (1971) hypothesized that a heavy reliance on phonics tends to divert

children from the meaning of what they read.

Non-Corrected Miscues That are Syntactically Acceptable Within the Total Sentence

The analysis of the syntactic acceptability of non-corrected miscues provided further information concerning the relationship of grammatical constraints and oral reading behavior. Table 9 shows that all of the eclectic ability groupings produced higher percentages of non-corrected miscues that were classified as syntactically acceptable within the total sentence. Table 9 also indicates that average and high ability students are more proficient in their ability to make use of syntactic cues..

Non-Corrected Miscues That are Semantically Acceptable in the Total Sentence

The analysis of the semantic acceptability of non-corrected miscues provided insights into the relationship of meaning and oral reading strategies. The hypothesis that instructional programs stressing an eclectic reading approach will result in higher numbers of non-corrected miscues that are semantically acceptable within the total sentence was supported by this study.

It would be reasonable to expect proficient readers not to make corrections if the error is semantically acceptable within the context of the sentence. The results on Table 9 indicate that the high ability and average ability eclectic readers produced the highest percentages of errors that were acceptable within the sentence. In contrast, the range of non-corrected semantically acceptable errors for the phonic group was 28% to 29.5%. Table 10 shows significant differences in favor of the eclectic

TABLE 9

Mean Percentages of Non-Corrected Miscues, Non-Corrected Miscues that are Syntactically Acceptable (Total Sentence), Non-Corrected Miscues that are Semantically Acceptable (Total Sentence), and Non-Corrected Miscues that Cause no Meaning Change (Total Passage) for High Ability, Average Ability, and Low Ability Phonic and Eclectic First Graders

Group	Non-Corrected Miscues	Non-Corrected Miscues Syntactically Acceptable	Non-Corrected Miscues Semantically Acceptable	Non-Corrected Miscues No Meaning Change
High Ability Phonic	84.40	66.89	29.5	20.41
High Ability Eclectic	54.00	80.67	76.54	77.80
Average Ability Phonic	86.00	50.80	29.20	20.00
Average Ability Eclectic	53.20	93.24	93.24	62.40
Low Ability Phonic	89.20	43.60	28.00	14.00
Low Ability Eclectic	72.80	70.76	64.80	50.00

TABLE 10

Non-Corrections

	PHONIC		ECLECTIC			
	$\bar{X}$	SD	$\bar{X}$	SD	F*	P
Non-Corrections	21.63	1.63	15.13	3.57	60.88	.0000
Non-Corrections Syntactically Acceptable	12.56	2.03	11.79	3.23	1.047	.3113
Non-Corrections Semantically Acceptable	6.83	1.85	11.41	3.54	43.09	.0000
Non-Corrections Causing No Meaning Change	4.60	1.95	9.37	3.36	33.21	.0000

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subjects. The major reason for their low percentage was due to their tendency to produce a high proportion of nonsense words. The nonsense words consistently resulted in sentences that were semantically unacceptable.

Non-Corrected Miscues That Cause no Change in Passage Meaning

This study supports the hypothesis that instructional programs emphasizing an eclectic reading approach will result in higher numbers of non-corrected miscues that cause no meaning change. The percentages compiled in Table 9 show that all eclectic readers tended to produce higher percentages of non-corrected errors that did not change passage meaning. The F-ratio in Table 10 shows significant differences in favor of the eclectic subjects. It is interesting to note that high ability eclectic readers were more proficient in relying on the meaning of the passage than were low ability eclectic readers. Thus, the percentages decrease in value as the ability of the students decreased (77.8% - 62.4% - 50%). The results of this study indicate that the degree of passage meaning change produced by a non-corrected error may be one of the most decisive differences between proficient eclectic readers and less proficient eclectic readers.

Average ability eclectic students appear to use sentence cues to a greater extent than total passage meaning cues. The results in Table 9 show that higher percentages of their errors resulted in sentences that were semantically acceptable (93.2%) rather than sentences affecting no meaning change in the total passage (62.4%). The middle ability student apparently requires a greater instructional emphasis on the comprehension of the total story.

Miscues that do not change meaning of the total story may not be corrected if the reader is involved in meaningful reading. Page (1974)

contends that miscues generated by meaningful oral reading will be semantically acceptable within the total passage. Goodman (1971) states that meaning change is the most significant oral reading category one can analyze. Meaning appears to be highly related to the eclectic reader's correction strategies. If the error resulted in a passage in which there was no change in meaning, the eclectic reader tended to ignore the miscue. This strategy was apparently related to the heavy reliance on meaning that was stressed throughout the eclectic program, although low ability eclectic readers did not benefit as significantly from this meaning stress.

This finding of the present study concurs with Burke's (1973) first grade results. Burke concluded that a first grade sample taught by a phonic emphasis approach produced miscues with lower meaning ratings than the miscues produced by a basal approach group.

This study demonstrated the differences in the correction and non-correction strategies that are developed by students who have learned to read using two different instructional approaches. The eclectic sample reflected the emphasis on meaning and grammatical and semantic consistency to which they had been subjected in their reading programs. They tended not to make oral reading corrections if the miscue resulted in sentences in which there was no meaning change. Likewise, the eclectic did not correct the reading error if the resulting sentence was semantically and grammatically acceptable. The high ability eclectic students, as would be expected, were more efficient than the low ability eclectic students.

The influence of the instructional approach was equally apparent when analyzing corrections. If the instructional oral reading error caused a meaning change and resulted in a sentence that was semantically and grammatically unacceptable, this eclectic sample tended to self-correct their errors.

Miscues That Cause no Loss of Comprehension

If a miscue does not change the meaning of the passage or the miscue is self-corrected, the miscue may not result in a loss of oral reading comprehension for the reader. This category reflected better reading ability in the eclectic group than in the phonic emphasis group. All the eclectic readers produced higher mean percentages and mean scores (Tables 11 and 12) than the phonic readers. Furthermore, the average number of miscues that cause no loss of comprehension was quite a reliable indicator of the level of reading efficiency displayed by a student. Table 11 indicates that this number is the highest for the high ability eclectic reader; the number is reduced as the ability levels of the students decrease. The percentage of miscues that cause no comprehension loss was only half as great for the low ability group when compared with the high ability group.

Further diagnostic knowledge is obtained by analyzing the individual no-loss-of-comprehension totals for the low ability eclectic group. Table 13 compiles the individual miscue comprehension scores. The three subjects who produced the lowest scores also produced the lowest comprehension scores on the Silvaroli Classroom Reading Inventory.

Subjects 6, 8, and 10 in Table 13 produced fewer uncorrected miscues that did not change the meaning of the passage and they did not correct as many errors that had previously caused a meaning change. The miscue analysis may prove a valuable assessment tool in the analysis of which types of error patterns appear to be related to comprehension. Remedial instruction would need to focus on the development of error correction patterns that are related to the development of comprehension skills.

TABLE 11

Mean Percentages of Miscues that Cause No Loss of Comprehension and Miscues that Cause Loss of Comprehension for High Ability, Average Ability, and Low Ability Phonic and Eclectic First Graders

Group	Miscues - No Loss of Comprehension	Miscues - Loss of Comprehension
High Ability Phonic	36.4	60.4
High Ability Eclectic	85.2	10.4
Average Ability Phonic	35.2	62.0
Average Ability Eclectic	80.8	16.8
Low Ability Phonic	28.8	68.4
Low Ability Eclectic	49.2	48.4

TABLE 12

Comprehension

	PHONIC		ECLECTIC			
	$\bar{X}$	SD	$\bar{X}$	SD	F*	P
No Loss	8.36	2.21	18.41	2.77	113.73	.0000
Total Loss	15.90	2.33	5.89	2.98	98.78	.0000

*1/57

TABLE 13

Individual Miscue Comprehension Raw Scores of Low Ability Eclectic Students

Subject	Uncorrected Miscues with no Comprehension Loss		Comprehension Loss Corrections		Total Miscue Comprehension Score
1	15	+	3	=	18
2	11	+	5	=	16
3	10	+	6	=	16
4	9	+	7	=	16
5	14	+	2	=	16
6	5	+	3	=	8*
7	8	+	4	=	12
8	5	+	1	=	6*
9	8	+	3	=	11
10	3	+	2	=	5*

* Lowest Silvaroli Comprehension Scores

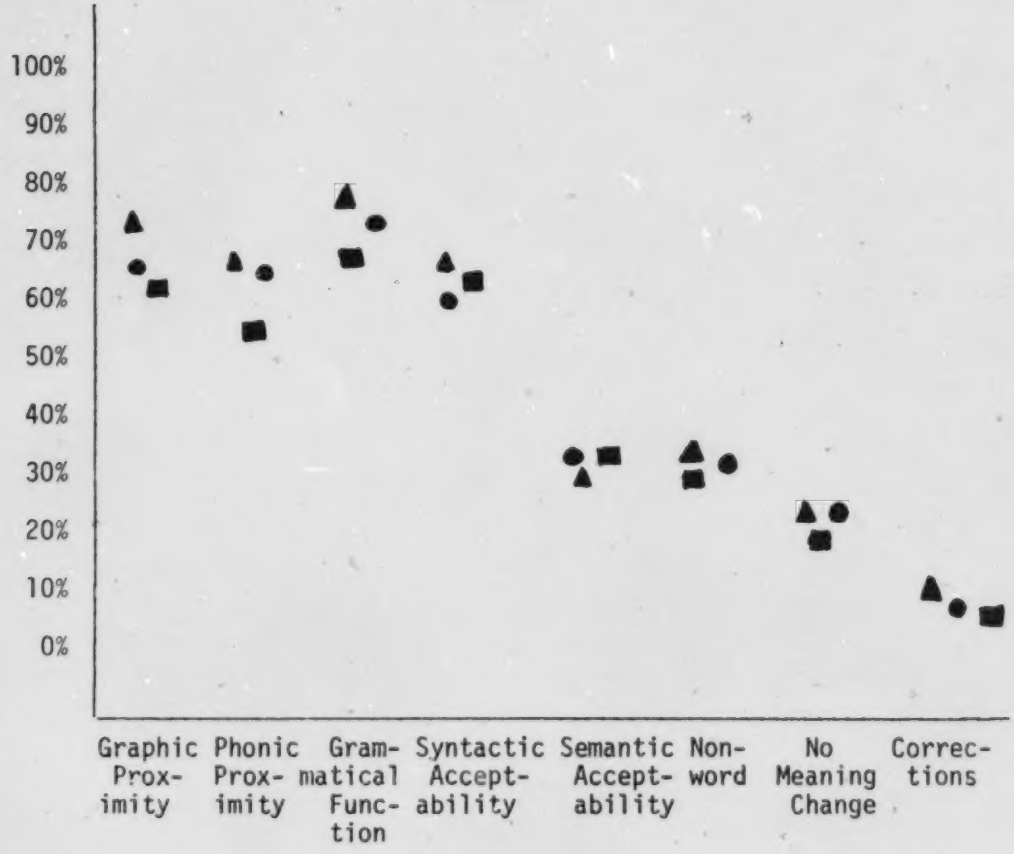
Similarities Between Ability Groups Within an Instructional Approach

This study hypothesized that a phonic emphasis approach and an eclectic approach would produce readers displaying different oral reading strategies. This study further hypothesized that if the instructional approaches were actually the cause of different oral reading strategies, then high, middle, and low ability students within the same approach should produce similar oral reading profiles.

As a result, a miscue analysis should produce few differences in numbers for each of the categories in the study when high, middle, and low ability phonic emphasis students are compared. Figure 1 compiles the miscue percentages for the three phonic emphasis ability groupings. It is apparent that the patterns for the three groups are similar, although the low ability group did not demonstrate as high a utilization of graphic and phonic word attack skills. In addition, the low ability phonic students produced fewer errors that are the same grammatical function as the text word. The low ability phonic students also produced fewer errors that cause no meaning change within the text of the story.

It would appear that all ability groups within a phonic emphasis program develop specific oral reading strategies. The students produced a high porportion of words that have the same graphic proximity and phonic proximity as the text word. The code emphasis of the program does develop a student's reliance on a phonic reading strategy. The students also utilize their knowledge of grammatical constraints. A large portion of their errors had the same grammatical function as the text word as well as producing sentences that were syntactically acceptable. This syntactic acceptability was higher than semantic acceptability. It would

Figure 1



Similarities Between High, Middle, and Low Ability Phonic Groups

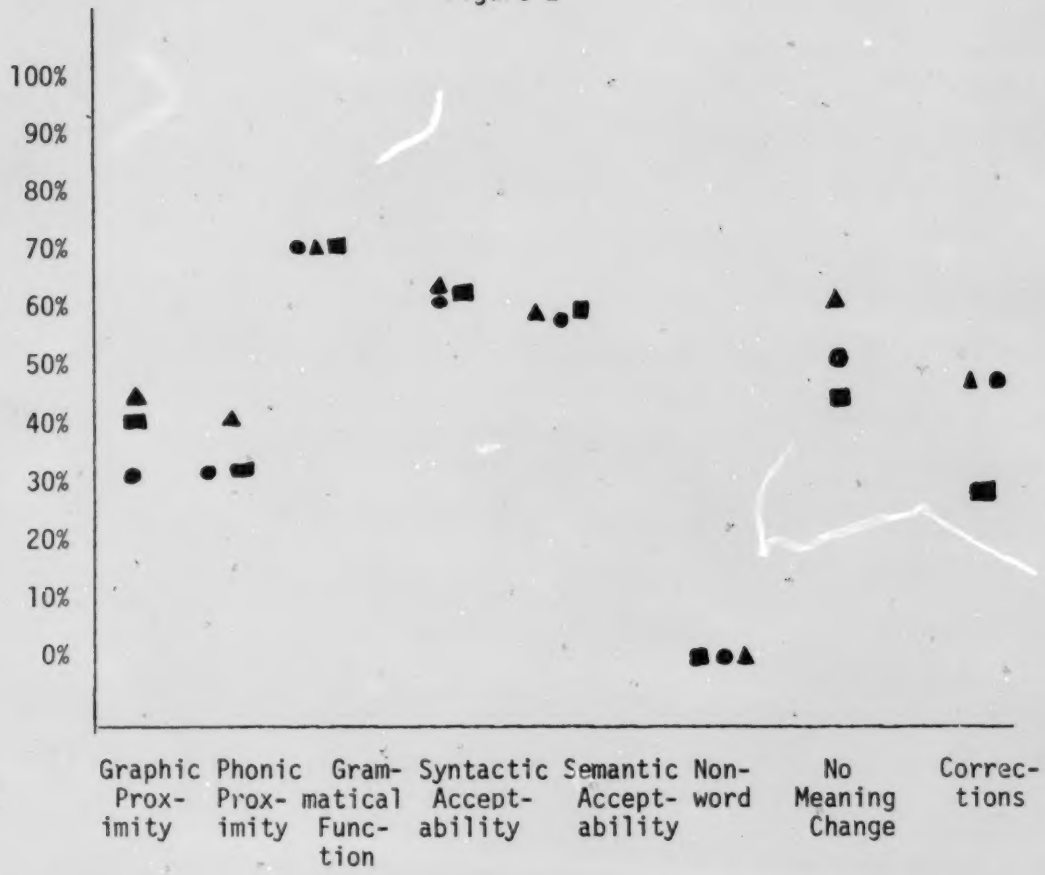
KEY: ▲ = High Phonic First Grade Readers
● = Middle Phonic First Grade Readers
■ = Low Phonic First Grade Readers

appear that first grade phonic emphasis students do not use semantic cues as much as they use graphic, phonic, and grammatical cues. This hypothesis is substantiated by the phonic emphasis students' production of a great number of nonword miscues. These nonword miscues are usually categorized as having a high graphic proximity, a high phonic proximity, and a similar grammatical function.

The phonic emphasis students did not demonstrate the development of consistent correction strategies. This may be due to the stress on graphic and phonic cues. The students' errors were both graphically and phonically similar to the text word; consequently, they may have experienced no urge to correct the error even though the error resulted in both a meaning change and a semantically unacceptable sentence. This would be an example of Festinger's (1958) description of perceptual dissonance. Developmental and remedial reading teachers may both benefit from an analysis of a student's oral reading errors. If the teacher graphs the errors as illustrated in Figures 1 and 2, the teacher will be able to perceive a particular student's oral reading strategies. The strategies that are highly developed are observable; in addition, the teacher will have diagnostic information for the development of a reading program that will stress the development of the weaker strategies. As an example, most of the phonic emphasis students are extremely proficient in phonic word attack. A weakness is apparent in their ability to make oral reading corrections. This weakness indicates that both developmental and remedial teachers need to stress the development of semantic reading cues.

In contrast to the phonic emphasis profiles, the eclectic groups produced different oral reading strategies. Figure 2 compiles the category percentages for the high, middle, and low ability eclectic students.

Figure 2



Similarities Between High, Middle, and Low Ability Eclectic Groups

KEY: ▲ = High Eclectic First Grade Readers
● = Middle Eclectic First Grade Readers
■ = Low Eclectic First Grade Readers

The eclectic instructional stress on contextual constraints was apparent in the oral reading profiles. Four of the categories are almost identical for all eclectic ability groups. This approach apparently produces students who rely on cues related to grammatical function, syntactic acceptability, and semantic acceptability, This tendency to rely on semantic cues is illustrated by the low production of nonword miscues. A nonword would definitely result in a sentence that was semantically unacceptable.

The four remaining categories illustrated in Figure 2 show differences according to ability groups. As an example, the high ability eclectic students used the graphic and phonic cues in words more frequently than the low ability eclectic students. The instructional phonic activities provided by the approach may be sufficient for the high ability student. The lower ability student may need supplementary instruction in structured phonic materials.

Differences are also visible in the production of errors that do not cause a meaning change within the total text. The percentages in this area decrease with the ability of the students. The high ability eclectic students predominately produced errors that did not change the meaning of the total text. The lower ability students were not concentrating as effectively on total meaning. This meaning category was one of the most reliable indicators of the eclectic students' level of reading ability. It is interesting to note that the low ability student appears to be focusing on individual sentences rather than on total passage meaning. If this hypothesis is true, the reading program needs to stress longer passage meaning.

Correction strategies also differ according to the ability of the eclectic readers. Figure 2 shows that both and average ability eclectic

students correct more errors than low ability eclectic students. When students do not correct their errors, they are apparently not thinking about meaning as they read. The student should ask himself, "Does what I read make sense in this story? If not, what should I do about it?".

The correction strategies demonstrated by the eclectic readers add credibility to Festinger's description of cognitive dissonance. Festinger (1958) maintains that when there is a difference between what the child reads and what the child feels should have been read, the child senses cognitive dissonance. This cognitive dissonance supposedly causes the child to correct errors which are semantically unacceptable. Obviously, the higher ability eclectic student has developed greater cognitive strategies than the low ability students. Furthermore, all eclectic students apparently develop cognitive strategies more effectively than phonic emphasis students.

An eclectic student's profile will also be valuable to both the developmental and the remedial teacher. The effective reader appears to balance the use of phonic, syntactic, semantic, and meaning strategies. This effective reader apparently corrects errors when the error interferes with syntactic, semantic, and total passage meaning cues. The poor reader who has not developed these reading strategies would need instructional materials that stress the development of correction strategies. In addition, the poor reader may demonstrate poorly developed phonic skills. The oral reading profile will provide valuable diagnostic information about the poor reader's precise needs.

Comprehension Differences Between Phonic Emphasis and Eclectic Emphasis Subjects

The Silvaroli Classroom Inventory (1973) was administered to each

subject in order to test the hypothesis that the two instructional programs would produce children with different word recognition and comprehension patterns. The Silvaroli Classroom Inventory tests two areas pertaining to reading: these include an independent and an instructional level of word recognition and an independent and instructional level of comprehension.

The results exhibited in Tables 14, 16, and 18 illustrate that students do produce different comprehension patterns; furthermore, these patterns are related to the instructional approach. Table 14 compiles the results of the two high ability groups. The phonic students averaged independent word recognition grade levels of 2.96 compared to independent word recognition levels of 1.66 produced by the eclectic students. The instructional word recognition level also favored the high ability phonic group. This superior word recognition achievement corresponds with the phonic decoding skills that are heavily stressed in the phonic emphasis materials. In contrast, the high ability eclectic students produced higher comprehension scores than the phonic emphasis students. Independent eclectic comprehension scores of 2.76 were compared to 2.1 for the phonic group. At the instructional level, comprehension scores of 3.9 favored the eclectic group.

The early comprehension emphasis of the eclectic approach apparently produced students who demonstrated higher comprehension skills than word recognition skills. The independent comprehension skills of this eclectic group averaged slightly over one grade higher than their word recognition levels. The same pattern was visible at the instructional level; comprehension averaged 1.12 grades higher than word recognition.

The phonic emphasis was equally apparent in the grade equivalents of the high ability phonic student. The phonic students averaged independent

TABLE 14

Independent and Instructional Word Recognition and Comprehension Mean Grade Equivalents of High Ability Phonic and High Ability Eclectic Students

	High Phonic	High Eclectic
Independent Word Recognition Grade Level	2.96	1.66
Independent Comprehension Grade Level	2.1	2.76
Instructional Word Recognition Grade Level	4.0	2.82
Instructional Comprehension Grade Level	2.86	3.9

TABLE 15

Silvaroli Scores for High Groups

	PHONIC		ECLECTIC			
	$\bar{X}$	SD	$\bar{X}$	SD	F*	P
Independent Word Recognition	23.20	1.27	9.80	.937	5.29	.0318
Independent Comprehension	12.70	1.01	21.00	.878	2.42	.1340
Instructional Word Recognition	35.00	1.31	22.00	.876	4.56	.0443
Instructional Comprehension	21.70	1.24	35.20	.737	5.41	.0302

*1/17

TABLE 16

Independent and Instructional Word Recognition and Comprehension Mean Grade Equivalents of Middle Ability Phonic and Middle Ability Eclectic Students

	Middle Phonic	Middle Eclectic
Independent Word Recognition Grade Level	1.32	
Independent Comprehension Grade Level	.74	1.52
Instructional Word Recognition Grade Level	2.58	1.28
Instructional Comprehension Grade Level	1.36	2.1

TABLE 17

Silvaroli Scores for Average Groups

	PHONIC		ECLECTIC			
	$\bar{X}$	SD	$\bar{X}$	SD	F*	P
Independent Word Recognition	3.30	.315	.400	.51	10.16	.0052
Independent Comprehension	1.30	.525	5.20	.193	25.491	.0002
Instructional Word Recognition	12.00	1.32	2.70	.193	10.90	.0042
Instructional Comprehension	4.40	.397	12.20	.48	10.736	.0044

*1/17

TABLE 18

Independent and Instructional Word Recognition and Comprehension Mean Grade Equivalents of Low Ability Phonic and Low Ability Eclectic Students

	Low Phonic	Low Eclectic
Independent Word Recognition Grade Level	1.0	.1
Independent Comprehension Grade Level	.377	1.08
Instructional Word Recognition Grade Level	1.32	.84
Instructional Comprehension Grade Level	.78	1.48

TABLE 19

Silvaroli Scores for Low Groups

	PHONIC		ECLECTIC			
	$\bar{X}$	SD	$\bar{X}$	SD	F*	P
Independent Word Recognition	.900	.564	.111	.316	3.63	.070
Independent Comprehension	.600	.578	1.77	.252	1.92	.180
Instructional Word Recognition	2.60	.282	1.11	.459	2.91	.1029
Instructional Comprehension	1.50	.592	4.88	.168	12.60	.0027

* 1/17

word recognition scores that were .86 grades above their comprehension scores and instructional word recognition scores that were 1.14 grades above comparable comprehension scores.

The comprehension and word recognition results are highly correlated with the miscue analysis patterns produced by both high ability groups. The group that produced high graphic and phonic proximities also produced higher word recognition grade equivalents. The group that produced high semantic acceptability, fewer meaning changes, and extensive corrections yielded higher comprehension scores. It would appear that the miscue analysis profile is related to the development of specific comprehension skills.

The middle ability phonic emphasis and eclectic students also demonstrated similar word recognition and comprehension patterns. Table 16 shows that middle ability phonic students produced higher word recognition scores compared to middle ability eclectic students, whereas middle ability eclectic students produced higher comprehension scores than middle ability phonic students. In addition, the middle ability phonic students produced higher word recognition scores than comprehension scores. The opposite results were scored by the eclectic students; comprehension was higher than word recognition. Tables 15, 17, and 19 show the significance.

Similar results for the low ability groups may be observed in Table 18. The Silvaroli scores for all low ability groups are lower than the scores for the high and average ability groups but the same word recognition and comprehension patterns are prevalent. The phonic students consistenly scored higher in word recognition, and the eclectic students' test results are higher in comprehension.

It is apparent, then, that the miscue analysis of patterns and comprehension scores both provide diagnostic information that can be used to

improve a child's instructional program. Instructional implications will be discussed in the final chapter.

Summary of Research Findings

The following differences between phonic cells and eclectic cells were found.

1. Instructional programs emphasizing phonics resulted in significantly higher mean scores of miscues that have a high graphic proximity.
2. Instructional programs emphasizing phonics resulted in significantly higher mean scores of miscues that have a high phonic proximity.
3. Instructional programs emphasizing phonics and instructional programs emphasizing eclectic reading resulted in similar mean scores for same grammatical function.
4. Instructional programs emphasizing eclectic reading resulted in significantly higher mean scores for miscues that were syntactically acceptable within the total sentence.
5. Instructional programs stressing eclectic reading resulted in significantly higher mean scores for miscues that are semantically acceptable within the total sentence.
6. Instructional programs emphasizing eclectic reading resulted in significantly higher mean scores for miscues that caused no change of meaning in the passage.
7. Instructional programs emphasizing phonics resulted in significantly higher mean scores for miscues that were classified as nonwords.
8. Instructional programs emphasizing eclectic reading resulted in significantly higher mean scores for miscues that were self-corrected by the student.

9. Instructional programs stressing eclectic reading resulted in significantly higher mean scores for self-corrected miscues that were syntactically acceptable with the prior portion of the sentence.
10. Instructional programs emphasizing eclectic reading resulted in significantly higher mean scores for self-corrected miscues that were semantically acceptable with the prior portion of the sentence.
11. Instructional programs emphasizing eclectic reading resulted in significantly higher mean scores for self-corrected miscues that had changed the meaning of the passage.
12. Instructional programs emphasizing phonics and instructional programs stressing eclectic reading resulted in similar mean scores for non-corrected miscues that were syntactically acceptable within the total sentence.
13. Instructional programs emphasizing eclectic reading resulted in significantly higher mean scores for non-corrected miscues that were semantically acceptable within the total sentence.
14. Instructional programs emphasizing eclectic reading resulted in significantly higher mean scores for noncorrected miscues that caused no meaning change within the total passage.
15. Instructional programs stressing an eclectic reading approach resulted in significantly higher mean scores for non-corrected miscues that cause no meaning loss plus corrections.
16. Instructional programs emphasizing phonics produce students who have higher word recognition grade scores than comprehension grade scores.

17. Instructional programs emphasizing eclectic reading produced students who have higher comprehension grade scores than word recognition grade scores.
18. Instructional programs stressing phonics produced significantly higher instructional word recognition levels.
19. Instructional programs stressing eclectic produced significantly higher instructional comprehension grade levels.

CHAPTER 4

TEACHER APPLICATION OF MISCUE PROFILES

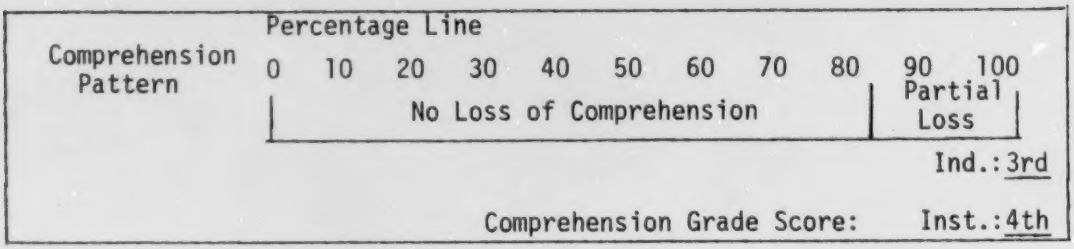
Reading Recommendations for Readers Who Make Highly Effective Use of Strategies

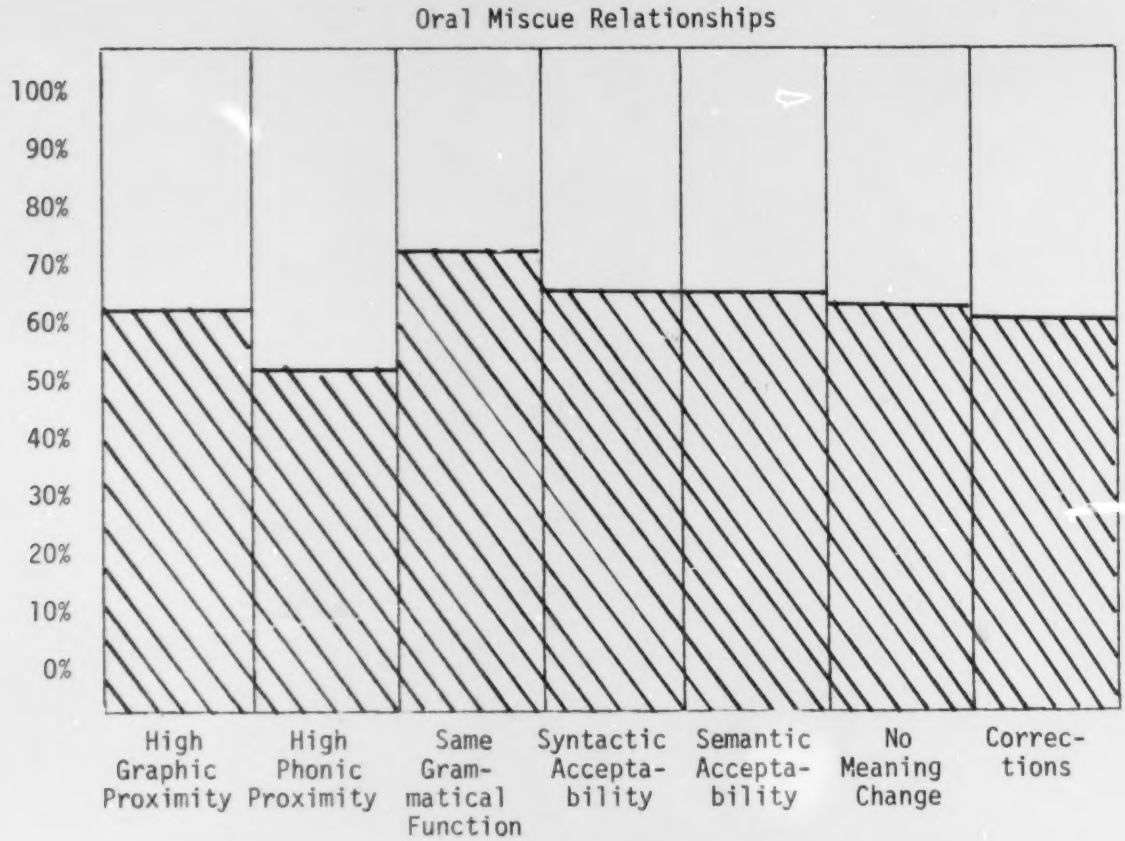
The reader who made highly effective use of reading strategies scored higher than 60 percent in the No Loss of Comprehension section of the inventory (Goodman 1971). The errors in this category either produced no loss in comprehension or were successfully self-corrected by the student. In addition, this reader also produced comprehension grade equivalency scores that were above grade level. The high ability eclectic students in this study met both of the effective reader criteria. Their no loss of comprehension scores averaged 85.2 percent and their independent comprehension grade level averaged 2.76. The middle ability eclectic students produced the required no loss of comprehension score (80.8 percent) but produced average independent comprehension grade scores (1.52).

The high ability phonic students produced low no loss of comprehension scores (36.4 percent) but adequate independent comprehension scores (2.1). Thus the high ability phonic students did not meet both of the criteria for effective reading strategies. The reading program for these students should stress a greater reliance on cueing systems which develop meaning. Strategies for these students will be discussed in the next section.

The reader profile of a highly effective reader illustrates the cueing systems utilized by that reader. Figure 3 is an example of the reader profile compiled from the oral miscues and the informal inventory of one of the highly effective readers in this current study. This student produced high comprehension grade scores as well as oral miscue patterns

Figure 3





Example of Reading Miscue Inventory Reader Profile

for a Highly Effective Reader in this Study

that demonstrated the use of all the linguistic cueing systems.

When readers produce reading profiles that are categorized as highly effective, they are ready for an expanded reading program which includes a variety of reading materials. These readers have the skills necessary for meaningful independent reading. The reading program can be individualized by the addition of supplementary materials to broaden the student's interests. Readers who produce effective profiles are ready for expanded recreational reading programs as well as beginning functional reading groups (Smith and Barrett 1975).

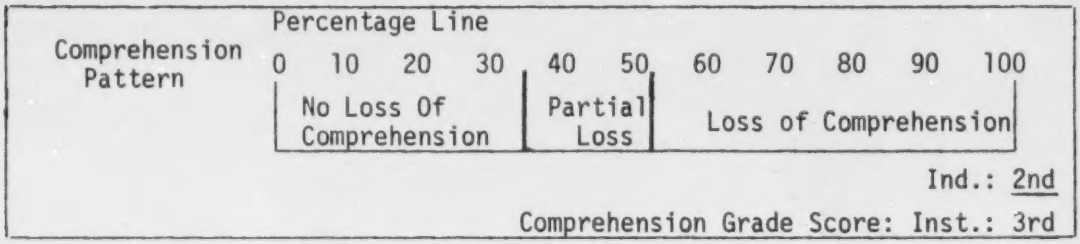
These effective readers should be provided with experiences in comparative reading and should be encouraged to make judgements about the validity and reliability of what they read. Functional reading groups should provide opportunities for research and the presentation of information to the class.

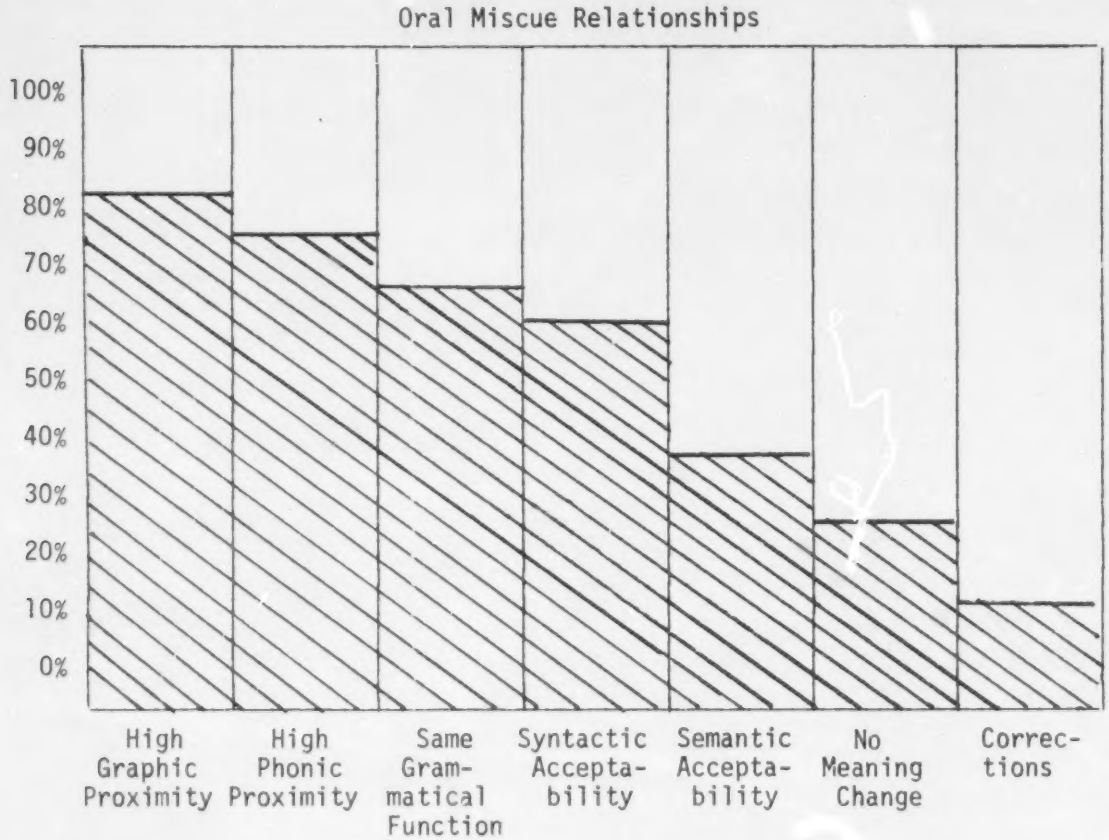
In addition, these readers should read materials which let them explore numerous levels of comprehension. Reading should stimulate thinking and imagination. Questions of inference, evaluation, and appreciation need to be asked, and the answers analyzed.

Reading Recommendations for Readers Who Make Moderately Effective Use of Reading Strategies

Two different profiles were produced by readers who made moderately effective use of reading strategies in this study. The first profile, as illustrated in Figure 4, was produced by a high ability phonic reader. The student in the example produced an above average comprehension score but produced oral miscues associated with an oral loss of comprehension. This pattern was produced by all of the phonic readers. The average no loss of comprehension percentage was 36.8 compared to an

Figure 4





Example of Reading Miscue Inventory Reader Profile for a Moderately Effective Reader in This Study

average grade level independent comprehension score of 2.1 and instructional comprehension score of 2.86.

The student who produced the profile in Figure 4 demonstrates three areas that should be improved in order to be a highly effective reader. They are semantic acceptability, meaning, and corrections. Often correction strategies provide insight into how the reader is relating with the meaning of the passage. When efficient readers use correction strategies they usually correct miscues that result in semantically unacceptable sentences and/or miscues that change the total meaning of the passage. Reader who do not correct these semantic and meaning errors are not focusing their attention on the meaning of the passage. These students need to be instructed in reading methods that will assist them in using context clues to develop word meanings and comprehension.

Contextual analysis of a word is accomplished by a number of meaning clues. Constance McCullough (1958) identified nine types of contextual clues that provide mean clues:

(1) Picture clues -

"The andirons were in front of the fireplace."

(2) Verbal clues - The sentence before or after the unknown word explain the meaning of the unknown word. For example:

"It takes specialists for a civilization to develop. Specialists are people who can spend much of their time on one task."

(3) Experience clues - The concrete experiences of the reader allow him to assume the meaning of the unknown word:

"Susan gave the cat _____ to drink."
"On the fourth of July the sky was red with the glow of pyrotechnics."

(4) Comparison and Contrast clues -

"Steve was happy to have a birthday party, but John was dejected because he missed the party."

(5) Synonym clues - A sentence involves a repetition of the same idea and employs a synonym for the unknown word:

"The dromedary has unusual speed; this one-humped camel lives in Asia."

(6) Summary clues - The strange word is a summary of several ideas:

"Oranges, lemons, and limes are some of the fruits grown in Florida."

(7) Definition clues -

"A tall stemmed drinking glass is called a goblet."

(8) Mood clues - The tone of the sentence suggests the nature of the new word:

"The happy boy's face was wreathed in smiles."

(9) Familiar Expression clues - The word is recognized by its use in a familiar language pattern or verbal experience:

"When he picked up the phone, he said, Hello."

Most contextual clues require inferential thinking. This kind of thinking is a vital element in the development of mature readers : higher levels of comprehension would be impossible without it. Contextual analysis provides a means of taking the reader beyond pronunciation toward the goal of meaning.

Spache (1971) recommends five types of contextual activites that are appropriate for primary children. These activities include:

1. Read a sentence, rhyme, jingle, or story in which obvious words are omitted. Children should supply the missing words and discuss why they chose that word.
2. Have children silently read a new selection. Question them on word meanings which they have to defend by discussion.
3. Insert a nonsense word in place of a specific word used several

times in a paragraph. Have students read the total paragraph before inferring the missing word and its meaning.

4. Provide reading materials with words omitted that are the same part of speech. Children state and defend their selection of the missing word. Discussion should include the descriptive aspects of that part of speech, i.e., verbs may be referred to as action words.
5. Other reading materials should be provided in which the correct initial consonant or blend is provided for the word. This technique combines contextual analysis and phonic analysis.

Students need to look at the words and surrounding unfamiliar words in order to gain unknown meanings and improve comprehension. Wendell Weaver (1963) found that the words that follow a strange word are more likely to aid in contextual analysis than those that precede it. It is thus desirable to teach pupils to read entire sentences in order to derive the meaning of unknown words. Students who do not correct semantically unacceptable sentences require structural exercises in which they are lead into an understanding of the correct meaning of not only sentences but longer passages as well.

One extremely successful remedial reading teacher asked each student to underline every word on a page that was unknown to him. If the student found the meaning of the word within the selection he was to circle the previously unknown word. At the end of the page the teacher helped the student with any word that was still not circled. This teacher reported excellent success as students became more experienced in the use of context clues. Her students had learned the valuable lesson that

reading is a meaningful dialogue between the reader and the author.

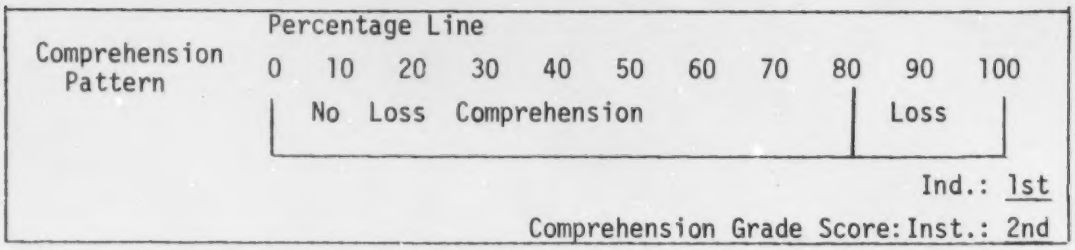
The student who produced the profile in Figure 4 also needs instruction that stresses the meaning of a total reading selection. Suggestions for this total meaning instruction will be discussed following the profile presented in Figure 5.

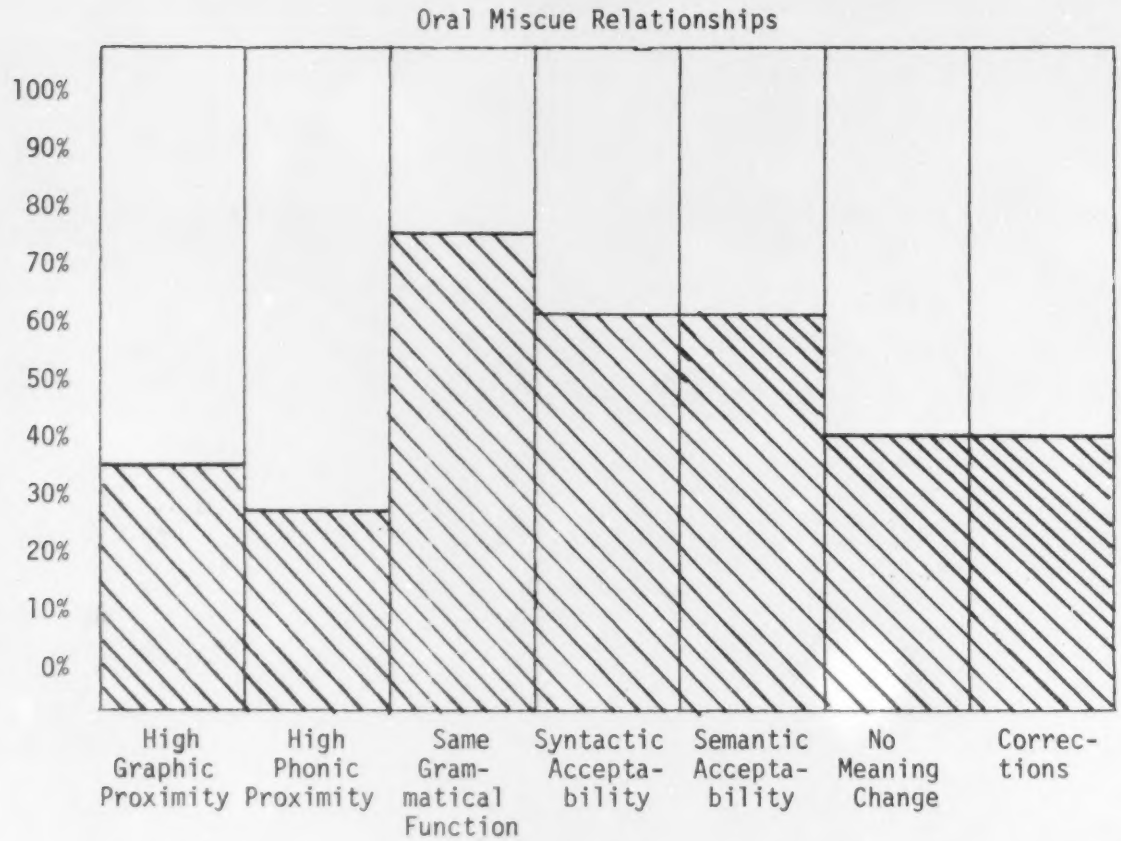
The majority of middle ability eclectic students produced the reading profiles that were classified as showing a moderately effective use of reading strategies. The student whose profile is illustrated in Figure 5 shows a weakness in phonic skills plus a difference between semantic acceptability in the sentence and no meaning change within the passage. The teacher designing a reading program for this profile should stress the improvement of phonic word attack skills and the comprehension of total reading selections.

One of the reasons this student is lower in comprehension than the highly effective student may be because he is focusing on the semantic acceptability of the immediate phrases and sentences rather than the meaning of the total story. Children need to be provided with numerous opportunities to read and comprehend longer passages. An excellent activity that teachers may use to assist children in the development of this broader comprehension is Russell Stauffer's (1968) Directed Reading-Thinking Activity.

The Directed Reading-Thinking Activity is designed to encourage children to think as they read; to predict and check their predictions. Stauffer (1968, p. 348) believes, "It is possible to direct the reading-thinking process in such a way that children will be encouraged to think when reading - to speculate, to search, to evaluate, and to use." The child's effort and concentration can be motivated by involving the child intellectually

Figure 5





Example of Reading Miscue Inventory Reader Profile for a Moderately Effective Reader in This Study

the child and asking him to formulate questions and hypotheses, to process information, and to evaluate tentative solutions.

Stauffer defines five steps in this Directed Reading-Thinking Activity:

1. Step one: Making predictions from title clues.
   a. Write the title of the selection on the chalkboard.
   b. Ask a child to read the title.
   c. Ask the children what they think the selection will cover - give time for children to consider the question thoroughly.
   d. Provide an opportunity for each child to make predictions.
   e. All predictions should be accepted.
   f. The teacher should not provide her own predictions during this discussion time.
2. Step two: Making predictions from picture clues.
   a. Ask children to examine carefully the pictures in the selection.
   b. Ask them to revise the predictions made earlier on the basis of the title alone.
3. Step three: Reading the material.
   a. Ask children to read the selection and check the accuracy of their predictions. They may read the whole story if it is a short selection or they may read one selection at a time if there are several subheadings.
4. Step four: Assessing the accuracy of predictions, adjusting predictions.
   a. After all of the children have finished reading the selections, the teacher leads a discussion about the accuracy of the predictions.
   b. Ask children who believe they are right to read orally the parts of the story that support their predictions.
   c. Children who were wrong in their predictions can explain why they think they were wrong.

5. Step five: Repeat the procedure until all parts of the lesson are completed.

Another excellent source for questioning techniques to improve comprehension is Sanders, Classroom Questions: What Kinds?; published by Harper and Row (1966). Sanders presents illustrative questions that are examples of seven categories in the taxonomy of comprehension. Teachers who wish to develop depth of comprehension and critical reading need to go beyond the simplest type of thinking, memory, or recall of factual details.

If teachers are to stimulate children's thinking, Sanders recommends the following types of questions:

1. Memory - recalling information given in the passage. Four kinds of ideas are included.

   a. Facts -

      Who _____?
      What _____?
      When _____?
      Where _____?
      How _____?

   b. Definitions of terms used in the text -

      What is meant by _____?
      What does _____ mean?
      Explain what we mean by _____?

   c. Generalizations - recognizing common characteristics of a group of ideas -

      In what ways do _____ resemble _____?
      What events led to _____?
      How did _____ and _____ cause _____?

   d. Values - judgment of quality -

      What is said about _____?
      What kind of a girl was _____?
      What did _____ do that you wouldn't do?

2. Translations - expressing ideas in different form or language -

   Tell me in your own words _____?

Could you draw a picture to show _____?
Write a story pretending you are _____.
What does the author mean by _____?

3. Interpretation - seeing relationships among facts, generalizations, values, etc. -

a. Comparative - are the ideas the same, different, or related -

How is _____ like _____?
Is _____ the same as _____?
Why?
Which three _____ are most alike?
How does _____ today resemble _____ in _____?

b. Implications - arriving at an idea which depends upon evidence in the passage -

If _____ continues to _____, what will probably happen?
What would happen if _____?
What would _____ and _____ lead to?

c. Inductive thinking - applying a generalization to a group of observed facts -

What is the author trying to tell you by _____?
What facts in the story support the idea _____?
What does the behavior of _____ tell you about him?
What events led to _____?

d. Quantitative - using a number of facts to reach a conclusion -

How many times did _____ do _____? Then what happened?
How many causes of _____ can you name?

e. Cause and Effect - recognizing the events leading to a happening -

Why did the boy _____?
How did the girl make _____ happen?
What three things led up to _____?
When the man _____, what had to happen?
Why did _____ happen?

4. Application - solving a problem that requires the use of generalizations, facts, and values -

Mary has had measles. What could we do to help her during her illness? How can we show her we think of her?

How can we show that we need a school crossing guard at _____?

What plans do we have to make before we _____?

5. Analysis - recognizing and applying rules of logic to the solution of a problem -

Some people think boys can run faster than girls. What do you think?

Discuss the statement - "All children go to summer camp."

6. Synthesis - using original creative thinking to solve a problem -

What other titles could you give to this story?
What other ending can you think of for this story?
If Jane had not _____, what might have happened?

7. Evaluation - making judgments based on clearly defined standards -

Did you enjoy the story of _____?
For what reason?
What did you think of _____ in this story? Did you like what he did?
In the story, the author tells us that _____ felt _____.
Is this a fact or the author's opinion?

The student who is not comprehending the total selection will benefit from diversified questions which stress in-depth comprehension.

The moderately effective student whose profile is shown in Figure 5 also showed weaknesses in phonic word attack. This skill improvement will be discussed in the next section dealing with students who have ineffective reading strategies.

Reading Recommendations for Readers Who Make Ineffective Use of Strategies

The readers who made ineffective use of reading strategies produced both low comprehension grade equivalencies and low no loss of oral comprehension percentages. The low ability phonic and low ability eclectic students both produced these two combinations, but the oral miscue relationships were quite different for the two groups.

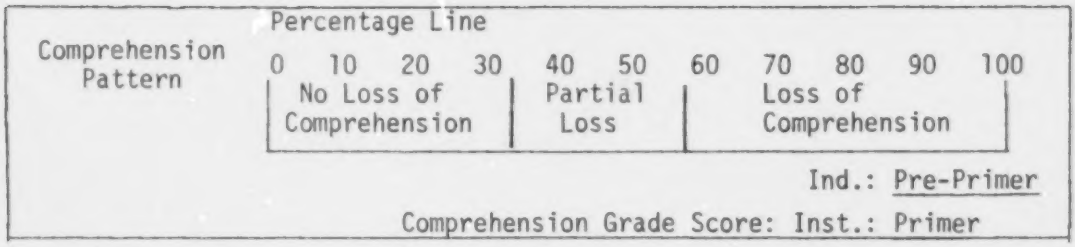
Figure 6 is an example of an eclectic student who has not developed effective strategies. This student displays low phonic word attack skills, weaker correction strategies, and lower comprehension scores. The Miscue Analysis provides a diagnostic technique for the assessment of a child's reliance on phonic word attack. Some children may be relying too heavily on phonics while others display a considerable lack of phonic ability. The student in Figure 6 demonstrates this lack of ability. If the child is to be successful in phonic word attack, several principles must be applied. Heilman (1975) has made several recommendations in regard to phonic instruction.

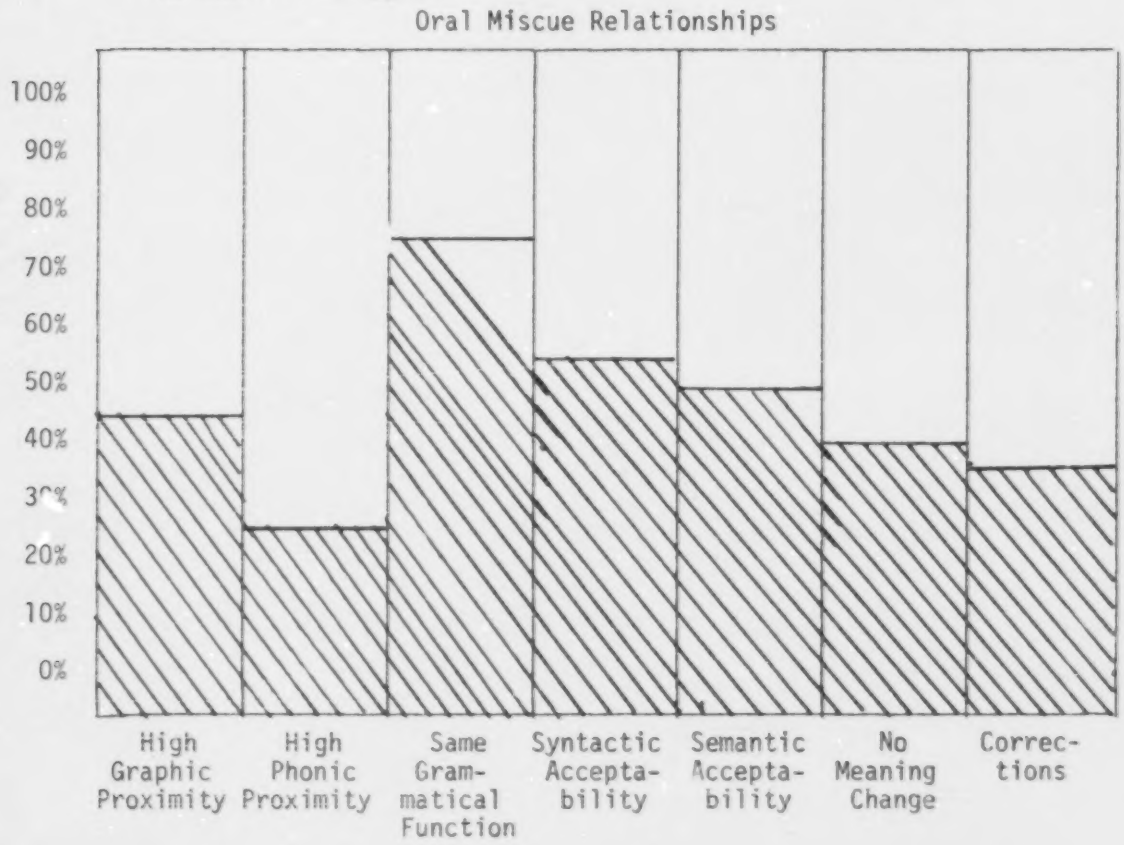
First, the child must be able to discriminate auditorily between different speech sounds in words and to discriminate visually between printed letters if he is to profit from phonics instruction. Consequently, some kindergarten and first grade children may require considerable readiness activities in order to hear and see the minimal differences in words. Other children, who may have specific learning disabilities, are apparently unable to hear these sound differences. Often a child with a reading disability may be able to identify sounds in isolation, but he may not demonstrate the ability to blend the sounds into a whole word.

Second, a learner tends to develop a set strategy for word attack if only one word recognition method is taught. For this reason, phonic analysis, structural analysis, contextual analysis, and sight words should all be included in the beginning reading program. The child should not rely on one skill. In fact, Heilman (1975) declares that "over reliance on one skill is indefensible".

Third, all necessary phonic skills needed by the child to become an independent reader should be taught. Consequently, all children do not need the same amount of phonics instruction. Heilman recommends, "the optimum amount of phonics instruction for each child is the minimum that will result

Figure 6





Example of Reading Miscue Inventory Reader Profile for an Ineffective Reader in This Study

in his becoming an independent reader.

Fourth, diagnosis is essential in order to discover each child's need. In this current research, the miscue analysis did identify the children who were unable to apply phonic analysis. The miscue analysis also identifies certain children who may rely too heavily on phonic analysis.

Fifth, the spelling patterns found in English writing limit the usefulness of certain rules or generalizations. In addition, a child's ability to recite phonic generalizations does not assure that the child has the ability to apply these gereralizations. Consequently, most reading authorities stress the development of phonic generalizations through inductive learning rather than deductive learning.

An inductive approach for beginning consonants would include the following activities:

1. Print the letter
2. Write words that begin with that letter.
3. Ask students to name beginning letter.
4. Teacher pronounces the words.
5. Students listen for beginning sound.
6. Students read words with teacher
7. Students supply other words which begin with the same initial sound
8. Students name the initial sound
9. Children use words in context

Example - Pp

play
please
Paul
party
people

By the time children have a larger reading vocabulary, an inductive phonic approach often begins with the illustrative words presented in sentence contexts. The following steps might be used to develop the ce, ci generalization. The teacher would write several sentences which contain

ce, ci words. For example:

See the fly on the ceiling.
We go to the city to buy clothes.
Our sidewalk is made of cement.
The clown was in the circus.

1. Help the students read the sentences.
2. Say the underlined words.
3. Ask students what sound the underlined words begin with.
4. Ask the students to provide other words that begin with the same sound. (Words that begin with s are put in a separate list.)
5. Ask students what letters follow c in the above examples.
6. Have students indicate the generalization for e or i following c.

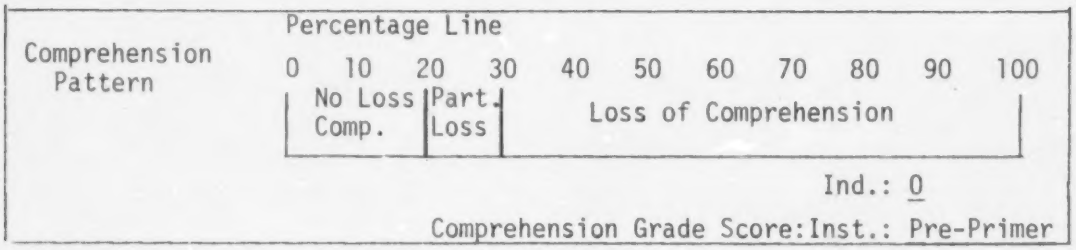
The poor reader needs to form his own generalizations with teacher assistance. In addition, the poor reader benefits from phonics presented in sentence contexts. The poor reader thus uses contextual clues to increase his mimimal ability to apply phonic analysis.

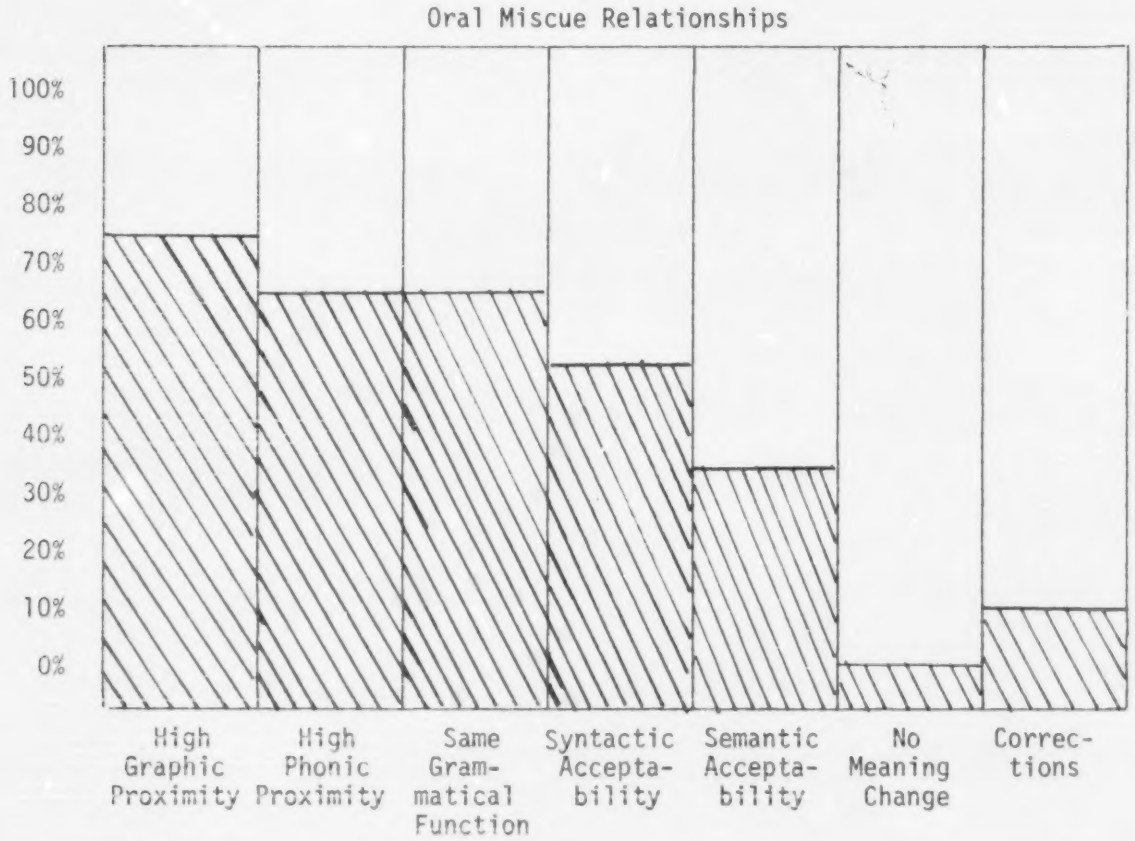
Materials which teach phonics through a word family approach have proven beneficial to numerous poor readers. These poor readers are often unable to blend several sounds to form a word but they may be able to learn to read through an approach that stresses the minimal contrasts of the word, i.e., will, hill, bill, fill. The Merrill Linguistic readers provide material based on this principle.

The ineffective reader represented by the profile in Figure 6 needs opportunities to dictate language experience stories and read these stories in order to realize that reading is a meaningful experience. This reader needs to develop the ability to use contextual analysis and comprehension. The advanced organizer suggestions for the student in Figure 7 would also be beneficial to this low ability reader.

The final example of an ineffective reading profile was produced by

Figure 7





Example of Reading Miscue Inventory Reader Profile for an Ineffective Reader in this Study

a low ability phonic emphasis student. Figure 7 shows that this ineffective reader has high phonic ability. This student corrects very few errors. In addition most of the errors resulted in semantically unacceptable sentences and sentences that changed the meaning of the total passage. The student in Figure 7 did not register an independent reading score. The first or Pre-Primer level was the instructional level for this student.

This type of student requires reading materials that allow him to understand that reading is a meaningful communication between the author and the reader. Most reading authorities agree that language experience activities in which the child reads his own dictated materials or other childrens' composed materials are very beneficial for the development of this critical understanding.

This student also requires simple materials that develop the ability to apply contextual analysis. In addition, the use of advanced organizers may be extremely helpful.

Smith and Barrett (1974) describe the use of advanced organizers in order to provide corrective instruction for poor readers. Smith and Barrett recommend that poor readers be alerted to linguistic structures and devices likely to cause interpretive difficulties before they begin reading a selection. Teachers must prepare students to identify key words and words showing important relationships. Figurative language should also be discussed. Poor readers should be taught to pause periodically in their reading to reflect on what they have just read. Ideas need to be sorted out, reflected on, and fitted into the reader's existing information before they can be comprehended and retained. Poor readers need to pause and restate the ideas in their own words.

Poor readers need special aids in order to organize ideas into a cognitive framework. Teachers should ask poor readers to mark places in a passage that are good for reflection and prediction. Some remedial reading teachers have successfully used road signs to signal students about difficult passages. A

sign could be used before difficult words or concepts. A

sign signals students to paraphrase ideas. Poor readers have not learned to restate materials in their own words. They need to be instructed repeatedly in this skill.

This researcher believes the greatest instructional implications of the miscue inventory are obtained from the teacher's application of each student's results compiled on the miscue profiles. When the information compiled from the comprehension test is included with the miscue analysis, the reading strategies used by students can be evaluated. This information may be used to improve the education of both developmental and remedial students.

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